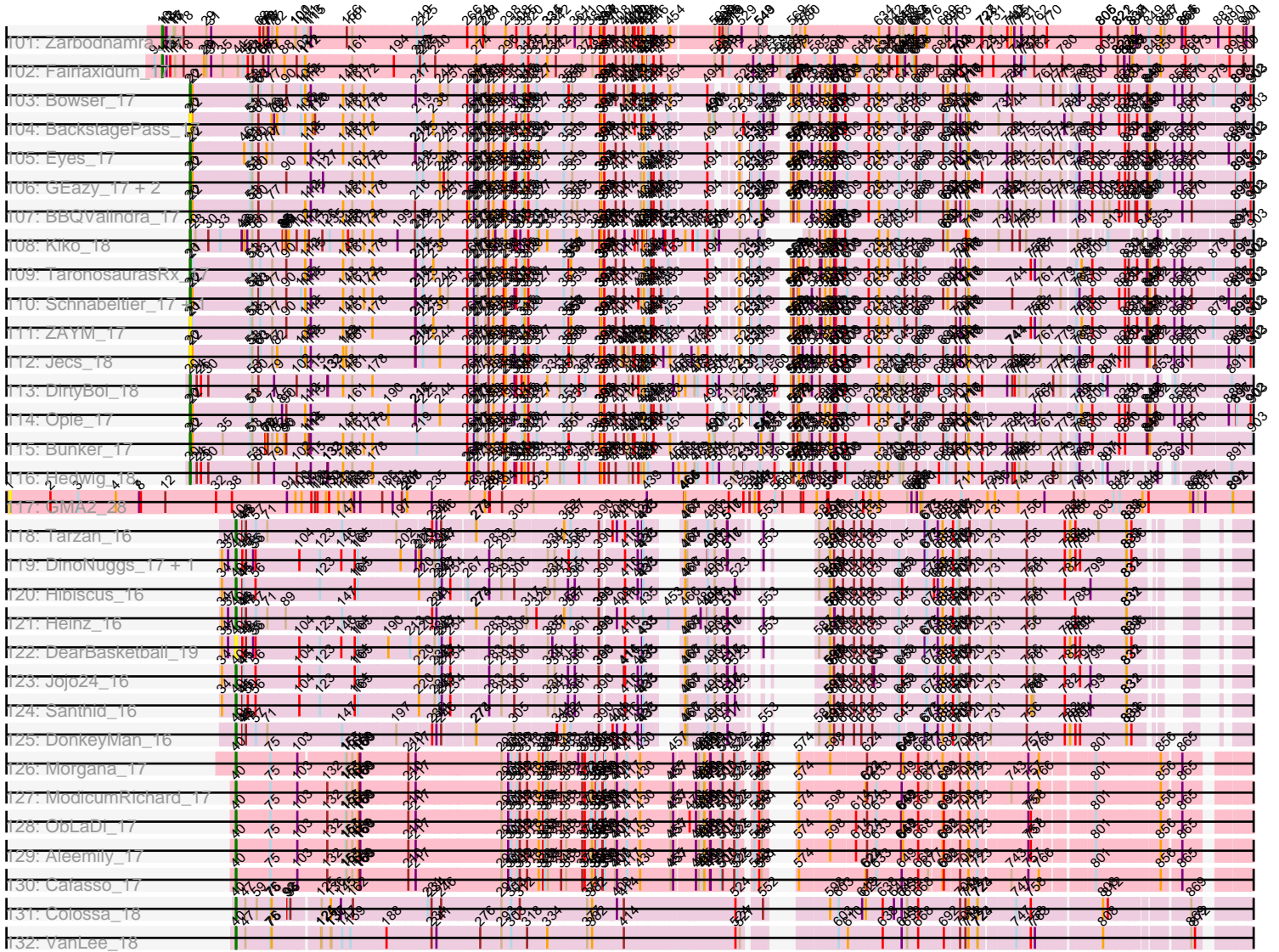


Zoomed Pham 311315

51: GoldHunter_17	186	259	243	597	683	756	798	809	874	884	900
52: SummitAcademy_17	186	259	243	597	683	756	798	809	874	884	900
53: PotPie_16	186	259	243	597	683	756	798	809	874	884	900
54: Carsonalex_17	186	259	243	597	683	756	798	809	874	884	900
55: MunkgeeRoachy_17	186	259	243	597	683	756	798	809	874	884	900
56: HippoPololi_18	186	259	243	597	683	756	798	809	874	884	900
57: MAnor_16	186	259	243	597	683	756	798	809	874	884	900
58: Cico_16	186	259	243	597	683	756	798	809	874	884	900
59: Typhonmacy_17	186	259	243	597	683	756	798	809	874	884	900
60: Nibbles_18	186	259	243	597	683	756	798	809	874	884	900
61: BillDoor_18	186	259	243	597	683	756	798	809	874	884	900
62: Solespian_16	186	259	243	597	683	756	798	809	874	884	900
63: Troje_16	186	259	243	597	683	756	798	809	874	884	900
64: RADical_17	186	259	243	597	683	756	798	809	874	884	900
65: RedBaron_18	186	259	243	597	683	756	798	809	874	884	900
66: Pons_16	186	259	243	597	683	756	798	809	874	884	900
67: Yucky_16	186	259	243	597	683	756	798	809	874	884	900
68: Socotra_17 + 1	186	259	243	597	683	756	798	809	874	884	900
69: Mavan_18	186	259	243	597	683	756	798	809	874	884	900
70: Mayweather_17	186	259	243	597	683	756	798	809	874	884	900
71: MiScam_18	186	259	243	597	683	756	798	809	874	884	900
72: Emalyn_16	186	259	243	597	683	756	798	809	874	884	900
73: GTE2_14	186	259	243	597	683	756	798	809	874	884	900
74: Margaret_19	186	259	243	597	683	756	798	809	874	884	900
75: Burnsey_16	186	259	243	597	683	756	798	809	874	884	900
76: Azira_18	186	259	243	597	683	756	798	809	874	884	900
77: Blondies_17	186	259	243	597	683	756	798	809	874	884	900
78: Frns8_17	186	259	243	597	683	756	798	809	874	884	900
79: PnrostedPngkake	186	259	243	597	683	756	798	809	874	884	900
80: Pipp_17	186	259	243	597	683	756	798	809	874	884	900
81: Murp_17	186	259	243	597	683	756	798	809	874	884	900
82: MintFen_17 + 1	186	259	243	597	683	756	798	809	874	884	900
83: CaptamKirK2_17	186	259	243	597	683	756	798	809	874	884	900
84: Jalammah_19	186	259	243	597	683	756	798	809	874	884	900
85: PCoral7_17	186	259	243	597	683	756	798	809	874	884	900
86: Petra_19	186	259	243	597	683	756	798	809	874	884	900
87: ZiggyZoo_16	186	259	243	597	683	756	798	809	874	884	900
88: PrincePatrick	186	259	243	597	683	756	798	809	874	884	900
89: Wairus_18	186	259	243	597	683	756	798	809	874	884	900
90: Toast_17	186	259	243	597	683	756	798	809	874	884	900
91: William_17	186	259	243	597	683	756	798	809	874	884	900
92: CheeseSpider	186	259	243	597	683	756	798	809	874	884	900
93: Archis_18	186	259	243	597	683	756	798	809	874	884	900
94: Hitter_17	186	259	243	597	683	756	798	809	874	884	900
95: Guacamole_17	186	259	243	597	683	756	798	809	874	884	900
96: KappaFarmDel	186	259	243	597	683	756	798	809	874	884	900
97: Juju_17	186	259	243	597	683	756	798	809	874	884	900
98: Lysidious_18	186	259	243	597	683	756	798	809	874	884	900
99: Utz_17	186	259	243	597	683	756	798	809	874	884	900
100: MeMe_16	186	259	243	597	683	756	798	809	874	884	900

Zoomed Pham 311315



Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

Pham 311315 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311315 has 155 members, 29 are drafts.

Phages represented in each track:

- Track 1 : Widow_16
- Track 2 : Applejacks_16
- Track 3 : Morrissey_17
- Track 4 : Puppies_16
- Track 5 : Upyo_16
- Track 6 : Mahdia_16
- Track 7 : Trine_16
- Track 8 : Gustav_16
- Track 9 : AikoCarson_15
- Track 10 : Agatha_16
- Track 11 : Dre3_16, Gibbous_16
- Track 12 : Bavidard_16
- Track 13 : McDazzle_15, ElJefes_15
- Track 14 : Nodigi_18
- Track 15 : Cozz_16
- Track 16 : Quasar_16
- Track 17 : ChocoMunchkin_16, AndPeggy_15, Yarn_15, CanesSauce_16, CaramellLatte_16
- Track 18 : Elliott_16, PsychoKiller_16
- Track 19 : Wolfwood_18
- Track 20 : SteamedHams_18
- Track 21 : Malvina_18
- Track 22 : Feastonyeet_15, BigChungus_15
- Track 23 : Amok_15
- Track 24 : Wallaby_20
- Track 25 : GiKK_19
- Track 26 : CocoaPuff_15
- Track 27 : Bubble_16
- Track 28 : Vine_17
- Track 29 : SweatNTears_18
- Track 30 : Nina_17
- Track 31 : Orla_18
- Track 32 : CherryonLim_17
- Track 33 : Lauer_15
- Track 34 : Buttrmilkdreams_16
- Track 35 : Yummy_17, Horseradish_17
- Track 36 : Tolls_18

- Track 37 : RSchmailzl_17
- Track 38 : Hexbug_18
- Track 39 : ChickenTender_18
- Track 40 : SheckWes_15
- Track 41 : Zareef_18
- Track 42 : Jamzy_19
- Track 43 : Tarnish_16
- Track 44 : KayGee_16, Elinal_17
- Track 45 : Balloona_15
- Track 46 : Biskit_17, SketchMex_15
- Track 47 : Starburst_17
- Track 48 : Survivors_18
- Track 49 : Button_17
- Track 50 : RanchParmCat_19
- Track 51 : GoldHunter_17
- Track 52 : SummitAcademy_15
- Track 53 : PotPie_16
- Track 54 : Carsonalex_17
- Track 55 : MunkgeeRoachy_16
- Track 56 : HippoPololi_18
- Track 57 : MAnor_16
- Track 58 : Cleo_16
- Track 59 : Typhonomachy_16
- Track 60 : Nibbles_18
- Track 61 : BillDoor_18
- Track 62 : Sopespian_16
- Track 63 : Troje_16
- Track 64 : RADical_17
- Track 65 : RedBaron_18
- Track 66 : Pons_16
- Track 67 : Yucky_16
- Track 68 : Socotra_17, Axym_16
- Track 69 : MaVan_18
- Track 70 : Mayweather_17
- Track 71 : MScarn_18
- Track 72 : Emalyn_15
- Track 73 : GTE2_14
- Track 74 : Margaret_19
- Track 75 : Burnsey_16
- Track 76 : Azira_18
- Track 77 : Blondies_17
- Track 78 : Fribs8_17
- Track 79 : PhrostedPhlake_18
- Track 80 : Pipp_17
- Track 81 : Murp_17
- Track 82 : MintFen_17, Melba_17, BlingBling_17, Barco_17
- Track 83 : CaptainKirk2_17, Delian_17, UmaThurman_17
- Track 84 : Jalammah_19
- Track 85 : PCoral7_17
- Track 86 : Petra_19
- Track 87 : ZiggyZoo_16, Obliviate_16
- Track 88 : PrincePatrick_17
- Track 89 : Walrus_18

- Track 90 : Toast_17
- Track 91 : William_17
- Track 92 : CheeseSpider_20
- Track 93 : Archis_18
- Track 94 : Hitter_17
- Track 95 : Guacamole_17, JasperJr_17
- Track 96 : KappaFarmDelta_17
- Track 97 : JuJu_17
- Track 98 : Lysidious_18
- Track 99 : Utz_17
- Track 100 : Mellie_16
- Track 101 : Zarbodnamra_17
- Track 102 : Fairfaxidum_17
- Track 103 : Bowser_17
- Track 104 : BackstagePass_17
- Track 105 : Eyes_17
- Track 106 : GEazy_17, HannahD_17, NaLuna_17
- Track 107 : BBQValindra_17
- Track 108 : Kiko_18
- Track 109 : TaronosaurusRx_17
- Track 110 : Schnabeltier_17, MagicMan_17
- Track 111 : ZAYM_17
- Track 112 : Jecs_18
- Track 113 : DirtyBoi_18
- Track 114 : Opie_17
- Track 115 : Bunker_17
- Track 116 : Hedwig_18
- Track 117 : GMA2_28
- Track 118 : Tarzan_16
- Track 119 : DinoNuggs_17, Reyja_17
- Track 120 : Hibiscus_16
- Track 121 : Heinz_16
- Track 122 : DearBasketball_19
- Track 123 : Jojo24_16
- Track 124 : Santhid_16
- Track 125 : DonkeyMan_16
- Track 126 : Morgana_17
- Track 127 : ModicumRichard_17
- Track 128 : ObLaDi_17
- Track 129 : Aleemily_17
- Track 130 : Cafasso_17
- Track 131 : Colossa_18
- Track 132 : VanLee_18

Summary of Final Annotations (See graph section above for start numbers):

The start number called the most often in the published annotations is 22, it was called in 37 of the 126 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Agatha_16, Axym_16, Azira_18, Bavidard_16, BigChungus_15, Bubble_16, Burnsey_16, Carsonalex_17, CherryonLim_17, ChickenTender_18, Cleo_16, CocoaPuff_15, Cozz_16, Dre3_16, Elinal_17, Elliott_16, Feastonyeet_15, Fribs8_17, Gibbous_16, GoldHunter_17, HippoPololi_18, KayGee_16, Lauer_15, MAnor_16, MaVan_18, Malvina_18, Mayweather_17, MunkgeeRoachy_16, Nibbles_18, Nina_17, Pons_16, PotPie_16, PsychoKiller_16, Quasar_16, RADical_17, RSchmailzl_17, RedBaron_18, SheckWes_15, Socotra_17, Sopespian_16, Starburst_17, SummitAcademy_15, Survivors_18, Tarnish_16, Typhonomachy_16, Vine_17, Wallaby_20, Wolfwood_18, Yucky_16, Zareef_18,

Genes that have the "Most Annotated" start but do not call it:

- BBQValindra_17, BackstagePass_17, Balloona_15, Bowser_17, Bunker_17, ElJefes_15, Eyes_17, GEazy_17, HannahD_17, Jecs_18, MagicMan_17, McDazzle_15, NaLuna_17, Opie_17, Schnabeltier_17,

Genes that do not have the "Most Annotated" start:

- AikoCarson_15, Aleemily_17, Amok_15, AndPeggy_15, Applejacks_16, Archis_18, Barco_17, BillDoor_18, Biskit_17, BlingBling_17, Blondies_17, Button_17, Buttrmilkdreams_16, Cafasso_17, CanesSauce_16, CaptainKirk2_17, Caramellatte_16, CheeseSpider_20, ChocoMunchkin_16, Colossa_18, DearBasketball_19, Delian_17, DinoNuggs_17, DirtyBoi_18, DonkeyMan_16, Emalyn_15, Fairfaxidum_17, GMA2_28, GTE2_14, GiKK_19, Guacamole_17, Gustav_16, Hedwig_18, Heinz_16, Hexbug_18, Hibiscus_16, Hitter_17, Horseradish_17, Jalammah_19, Jamzy_19, JasperJr_17, Jojo24_16, JuJu_17, KappaFarmDelta_17, Kiko_18, Lysidious_18, MScarn_18, Mahdia_16, Margaret_19, Melba_17, Mellie_16, MintFen_17, ModicumRichard_17, Morgana_17, Morrissey_17, Murp_17, Nodigi_18, ObLaDi_17, Obliviate_16, Orla_18, PCoral7_17, Petra_19, PhrostedPhlake_18, Pipp_17, PrincePatrick_17, Puppies_16, RanchParmCat_19, Reyja_17, Santhid_16, SketchMex_15, SteamedHams_18, SweatNTears_18, TaronosaurusRx_17, Tarzan_16, Toast_17, Tolls_18, Trine_16, Troje_16, UmaThurman_17, Upyo_16, Utz_17, VanLee_18, Walrus_18, Widow_16, William_17, Yarn_15, Yummy_17, ZAYM_17, Zarbodnamra_17, ZiggyZoo_16,

Summary by start number:

Start 1:

- Found in 1 of 155 (0.6%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA2_28 (DS),

Start 6:

- Found in 1 of 155 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 126
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pipp_17 (CV),

Start 9:

- Found in 5 of 155 (3.2%) of genes in pham
- Manual Annotations of this start: 1 of 126
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Toast_17 (CV),

Start 10:

- Found in 31 of 155 (20.0%) of genes in pham
- Manual Annotations of this start: 26 of 126
- Called 83.9% of time when present
- Phage (with cluster) where this start called: Archis_18 (CV), Barco_17 (CV), BlingBling_17 (CV), CaptainKirk2_17 (CV), Delian_17 (CV), Fairfaxidum_17 (CV), Guacamole_17 (CV), Hitter_17 (CV), Jalammah_19 (CV), JasperJr_17 (CV), JuJu_17 (CV), KappaFarmDelta_17 (CV), Lysidious_18 (CV), Melba_17 (CV), Mellie_16 (CV), MintFen_17 (CV), Murp_17 (CV), Obliviate_16 (CV), PCoral7_17 (CV), PhrostedPhlake_18 (CV), PrincePatrick_17 (CV), UmaThurman_17 (CV), Utz_17 (CV), William_17 (CV), Zarbodnamra_17 (CV), ZiggyZoo_16 (CV),

Start 13:

- Found in 28 of 155 (18.1%) of genes in pham
- Manual Annotations of this start: 1 of 126
- Called 3.6% of time when present
- Phage (with cluster) where this start called: Walrus_18 (CV),

Start 15:

- Found in 26 of 155 (16.8%) of genes in pham
- Manual Annotations of this start: 1 of 126
- Called 7.7% of time when present
- Phage (with cluster) where this start called: CheeseSpider_20 (CV), Petra_19 (CV),

Start 20:

- Found in 17 of 155 (11.0%) of genes in pham
- Manual Annotations of this start: 13 of 126
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BBQValindra_17 (DB), BackstagePass_17 (DB), Bowser_17 (DB), Bunker_17 (DB), DirtyBoi_18 (DB), Eyes_17 (DB), GEazy_17 (DB), HannahD_17 (DB), Hedwig_18 (DB), Jecs_18 (DB), Kiko_18 (DB), MagicMan_17 (DB), NaLuna_17 (DB), Opie_17 (DB), Schnabeltier_17 (DB), TaronosaurusRx_17 (DB), ZAYM_17 (DB),

Start 22:

- Found in 65 of 155 (41.9%) of genes in pham
- Manual Annotations of this start: 37 of 126
- Called 76.9% of time when present
- Phage (with cluster) where this start called: Agatha_16 (CT), Axym_16 (CT), Azira_18 (CT), Bavidard_16 (CT), BigChungus_15 (CT), Bubble_16 (CT), Burnsey_16 (CT), Carsonalex_17 (CT), CherryonLim_17 (CT), ChickenTender_18 (CT), Cleo_16 (CT), CocoaPuff_15 (CT), Cozz_16 (CT), Dre3_16 (CT), Elinal_17 (CT), Elliott_16 (CT), Feastonyeet_15 (CT), Fribs8_17 (CT), Gibbous_16 (CT), GoldHunter_17 (CT), HippoPololi_18 (CT), KayGee_16 (CT), Lauer_15 (CT), MAnor_16 (CT), MaVan_18 (CT), Malvina_18 (CT), Mayweather_17 (CT), MunkgeeRoachy_16 (CT), Nibbles_18 (CT), Nina_17 (CT), Pons_16 (CT), PotPie_16 (CT), PsychoKiller_16 (CT), Quasar_16 (CT), RADical_17 (CT), RSchmailzl_17 (CT), RedBaron_18 (CT), SheckWes_15 (CT), Socotra_17 (CT), Sopespian_16 (CT), Starburst_17 (CT), SummitAcademy_15 (CT), Survivors_18 (CT), Tarnish_16 (CT), Typhonmarchy_16 (CT), Vine_17 (CT), Wallaby_20 (CT), Wolfwood_18 (CT), Yucky_16 (CT), Zareef_18 (CT),

Start 36:

- Found in 54 of 155 (34.8%) of genes in pham
- No Manual Annotations of this start.
- Called 5.6% of time when present
- Phage (with cluster) where this start called: Balloona_15 (CT), ElJefes_15 (CT), McDazzle_15 (CT),

Start 39:

- Found in 8 of 155 (5.2%) of genes in pham
- Manual Annotations of this start: 7 of 126
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Applejacks_16 (CD), Gustav_16 (CD), Mahdia_16 (CD), Morrissey_17 (CD), Puppies_16 (CD), Trine_16 (CD), Upyo_16 (CD), Widow_16 (CD),

Start 40:

- Found in 28 of 155 (18.1%) of genes in pham
- Manual Annotations of this start: 14 of 126
- Called 57.1% of time when present
- Phage (with cluster) where this start called: Aleemily_17 (DZ), Cafasso_17 (DZ), Colossa_18 (KA), DearBasketball_19 (DY), DinoNuggs_17 (DY), DonkeyMan_16 (DY), Heinz_16 (DY), Hibiscus_16 (DY), Jojo24_16 (DY), ModicumRichard_17 (DZ), Morgana_17 (DZ), ObLaDi_17 (DZ), Reyja_17 (DY), Santhid_16 (DY), Tarzan_16 (DY), VanLee_18 (KA),

Start 87:

- Found in 14 of 155 (9.0%) of genes in pham
- Manual Annotations of this start: 7 of 126
- Called 50.0% of time when present
- Phage (with cluster) where this start called: GiKK_19 (CT), Hexbug_18 (CT), Jamzy_19 (CT), Margaret_19 (CT), Nodigi_18 (CT), Orla_18 (CT), RanchParmCat_19 (CT),

Start 91:

- Found in 22 of 155 (14.2%) of genes in pham
- Manual Annotations of this start: 16 of 126
- Called 86.4% of time when present
- Phage (with cluster) where this start called: AikoCarson_15 (CT), Amok_15 (CT), AndPeggy_15 (CT), BillDoor_18 (CT), Biskit_17 (CT), Buttrmilkdreams_16 (CT), CanesSauce_16 (CT), CaramelLatte_16 (CT), ChocoMunchkin_16 (CT), Emalyn_15 (CT), Horseradish_17 (CT), MScarn_18 (CT), SketchMex_15 (CT), SteamedHams_18 (CT), SweatNTears_18 (CT), Tolls_18 (CT), Troje_16 (CT), Yarn_15 (CT), Yummy_17 (CT),

Start 95:

- Found in 8 of 155 (5.2%) of genes in pham
- Manual Annotations of this start: 1 of 126
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Button_17 (CT),

Start 97:

- Found in 20 of 155 (12.9%) of genes in pham
- Manual Annotations of this start: 1 of 126
- Called 5.0% of time when present

- Phage (with cluster) where this start called: Blondies_17 (CT),

Start 129:

- Found in 21 of 155 (13.5%) of genes in pham
- No Manual Annotations of this start.
- Called 4.8% of time when present
- Phage (with cluster) where this start called: GTE2_14 (CT),

Summary by clusters:

There are 8 clusters represented in this pham: KA, DS, DB, CD, DZ, DY, CV, CT,

Info for manual annotations of cluster CD:

- Start number 39 was manually annotated 7 times for cluster CD.

Info for manual annotations of cluster CT:

- Start number 22 was manually annotated 37 times for cluster CT.
- Start number 87 was manually annotated 7 times for cluster CT.
- Start number 91 was manually annotated 16 times for cluster CT.
- Start number 95 was manually annotated 1 time for cluster CT.
- Start number 97 was manually annotated 1 time for cluster CT.

Info for manual annotations of cluster CV:

- Start number 6 was manually annotated 1 time for cluster CV.
- Start number 9 was manually annotated 1 time for cluster CV.
- Start number 10 was manually annotated 26 times for cluster CV.
- Start number 13 was manually annotated 1 time for cluster CV.
- Start number 15 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster DB:

- Start number 20 was manually annotated 13 times for cluster DB.

Info for manual annotations of cluster DY:

- Start number 40 was manually annotated 7 times for cluster DY.

Info for manual annotations of cluster DZ:

- Start number 40 was manually annotated 5 times for cluster DZ.

Info for manual annotations of cluster KA:

- Start number 40 was manually annotated 2 times for cluster KA.

Gene Information:

Gene: Agatha_16 Start: 9629, Stop: 14767, Start Num: 22

Candidate Starts for Agatha_16:

(19, 9605), (Start: 22 @9629 has 37 MA's), (25, 9656), (36, 9785), (43, 9860), (78, 10013), (79, 10016), (99, 10112), (102, 10121), (108, 10151), (111, 10157), (113, 10172), (114, 10175), (119, 10196), (135, 10268), (138, 10289), (158, 10355), (161, 10376), (185, 10493), (216, 10655), (225, 10694), (243, 10769), (271, 10928), (274, 10940), (278, 10967), (285, 11012), (289, 11024), (308, 11114), (313, 11132), (316, 11153), (321, 11183), (327, 11207), (329, 11219), (334, 11258), (340, 11291), (364,

11393), (365, 11396), (371, 11420), (394, 11513), (398, 11528), (404, 11567), (420, 11663), (432, 11705), (440, 11735), (441, 11738), (455, 11846), (456, 11849), (462, 11900), (484, 11975), (506, 12077), (518, 12122), (522, 12143), (523, 12146), (524, 12149), (540, 12224), (549, 12257), (554, 12278), (557, 12308), (569, 12356), (570, 12362), (574, 12389), (597, 12524), (613, 12641), (618, 12674), (622, 12695), (623, 12698), (637, 12764), (639, 12770), (641, 12785), (666, 12905), (668, 12914), (683, 12998), (756, 13319), (792, 13538), (798, 13574), (839, 13787), (874, 13979), (881, 14027), (884, 14048), (900, 14156), (909, 14222), (912, 14240), (929, 14345), (935, 14375), (937, 14384), (941, 14414), (948, 14480), (953, 14528), (961, 14588), (980, 14675), (989, 14738),

Gene: AikoCarson_15 Start: 9357, Stop: 14072, Start Num: 91

Candidate Starts for AikoCarson_15:

(Start: 91 @9357 has 16 MA's), (Start: 97 @9384 has 1 MA's), (129, 9513), (149, 9600), (157, 9615), (165, 9660), (169, 9672), (172, 9690), (175, 9717), (190, 9789), (198, 9831), (202, 9846), (203, 9849), (206, 9873), (212, 9891), (216, 9909), (227, 9954), (229, 9963), (237, 9990), (244, 10023), (256, 10083), (262, 10122), (269, 10161), (270, 10176), (283, 10245), (288, 10272), (310, 10368), (315, 10386), (325, 10449), (362, 10617), (364, 10623), (392, 10737), (394, 10743), (398, 10758), (436, 10947), (441, 10968), (445, 10986), (446, 10995), (462, 11130), (484, 11205), (492, 11241), (502, 11280), (503, 11283), (506, 11307), (515, 11337), (518, 11352), (523, 11376), (530, 11415), (540, 11454), (542, 11460), (574, 11619), (612, 11868), (613, 11871), (618, 11904), (622, 11925), (637, 11994), (639, 12000), (660, 12099), (668, 12144), (683, 12231), (722, 12366), (756, 12558), (768, 12627), (771, 12651), (796, 12792), (833, 13005), (839, 13026), (846, 13083), (888, 13386), (898, 13443), (900, 13461), (909, 13527), (921, 13599), (929, 13650), (934, 13674), (935, 13680), (937, 13689), (941, 13719), (948, 13785), (953, 13833), (961, 13893), (981, 13983), (989, 14043),

Gene: Aleemily_17 Start: 10958, Stop: 15649, Start Num: 40

Candidate Starts for Aleemily_17:

(Start: 40 @10958 has 14 MA's), (75, 11117), (103, 11240), (132, 11375), (153, 11462), (155, 11465), (161, 11492), (166, 11519), (168, 11525), (169, 11528), (210, 11747), (217, 11774), (293, 12149), (301, 12182), (303, 12191), (309, 12221), (312, 12233), (318, 12269), (328, 12314), (332, 12335), (333, 12344), (335, 12359), (348, 12407), (353, 12428), (372, 12503), (374, 12515), (381, 12548), (382, 12551), (386, 12569), (387, 12575), (396, 12602), (398, 12611), (399, 12614), (407, 12656), (409, 12665), (417, 12713), (430, 12776), (455, 12914), (457, 12923), (481, 13010), (485, 13022), (489, 13043), (490, 13049), (498, 13076), (499, 13079), (507, 13127), (510, 13136), (522, 13178), (525, 13190), (543, 13232), (548, 13253), (551, 13265), (574, 13307), (598, 13436), (614, 13535), (624, 13583), (633, 13619), (648, 13703), (649, 13706), (652, 13712), (668, 13784), (688, 13889), (692, 13895), (708, 13943), (718, 13979), (723, 14003), (757, 14198), (758, 14210), (801, 14435), (856, 14714), (865, 14792), (915, 15098), (920, 15143), (934, 15221), (935, 15227), (938, 15239), (943, 15284), (944, 15287), (963, 15461), (990, 15620),

Gene: Amok_15 Start: 9357, Stop: 14069, Start Num: 91

Candidate Starts for Amok_15:

(Start: 91 @9357 has 16 MA's), (Start: 97 @9384 has 1 MA's), (129, 9513), (149, 9600), (157, 9615), (165, 9660), (169, 9672), (172, 9690), (175, 9717), (190, 9789), (198, 9831), (202, 9846), (203, 9849), (206, 9873), (212, 9891), (216, 9909), (221, 9930), (227, 9954), (229, 9963), (237, 9990), (244, 10023), (247, 10032), (262, 10122), (269, 10161), (270, 10176), (283, 10245), (288, 10272), (310, 10368), (315, 10386), (325, 10449), (362, 10617), (364, 10623), (392, 10737), (394, 10743), (398, 10758), (436, 10947), (441, 10968), (445, 10986), (446, 10995), (462, 11130), (478, 11184), (484, 11205), (492, 11241), (502, 11280), (503, 11283), (506, 11307), (515, 11337), (518, 11352), (523, 11376), (530, 11415), (540, 11454), (542, 11460), (569, 11586), (573, 11616), (574, 11619), (577, 11637), (578, 11640), (612, 11868), (613, 11871), (618, 11904), (622, 11925), (637, 11994), (639, 12000), (683, 12231), (722, 12366), (756, 12558), (768, 12627), (771, 12651), (796, 12792), (833, 13005), (839, 13026), (846, 13080), (888, 13383), (898, 13440), (900, 13458), (909, 13524), (921, 13596), (929, 13647), (935, 13677), (937, 13686), (941, 13716), (948, 13782), (953, 13830), (961, 13890),

(981, 13980), (989, 14040),

Gene: AndPeggy_15 Start: 9645, Stop: 14432, Start Num: 91

Candidate Starts for AndPeggy_15:

(Start: 91 @9645 has 16 MA's), (Start: 97 @9672 has 1 MA's), (117, 9750), (129, 9801), (149, 9888), (157, 9903), (169, 9960), (172, 9978), (175, 10005), (177, 10008), (190, 10077), (202, 10134), (212, 10179), (216, 10197), (227, 10242), (237, 10278), (244, 10311), (253, 10359), (255, 10362), (262, 10410), (269, 10449), (270, 10464), (310, 10656), (315, 10674), (331, 10758), (362, 10905), (370, 10932), (392, 11025), (394, 11031), (398, 11046), (404, 11085), (407, 11097), (419, 11163), (436, 11235), (440, 11253), (441, 11256), (446, 11283), (492, 11529), (506, 11595), (518, 11640), (522, 11661), (523, 11664), (524, 11667), (530, 11703), (540, 11742), (542, 11748), (549, 11775), (573, 11904), (574, 11907), (577, 11925), (598, 12048), (600, 12063), (618, 12192), (622, 12213), (632, 12255), (637, 12282), (639, 12288), (665, 12420), (668, 12432), (683, 12519), (694, 12561), (706, 12597), (735, 12723), (738, 12762), (764, 12891), (772, 12948), (777, 12990), (796, 13083), (802, 13158), (817, 13221), (833, 13302), (839, 13323), (860, 13500), (862, 13506), (887, 13725), (898, 13803), (900, 13821), (901, 13827), (909, 13887), (912, 13905), (918, 13938), (929, 14010), (937, 14049), (941, 14079), (948, 14145), (953, 14193), (961, 14253), (981, 14343), (989, 14403),

Gene: Applejacks_16 Start: 9709, Stop: 14226, Start Num: 39

Candidate Starts for Applejacks_16:

(Start: 39 @9709 has 7 MA's), (45, 9748), (64, 9835), (84, 9922), (104, 10012), (122, 10093), (135, 10147), (143, 10189), (158, 10222), (169, 10273), (176, 10318), (180, 10327), (192, 10393), (210, 10474), (228, 10528), (260, 10660), (269, 10690), (273, 10720), (274, 10723), (290, 10798), (291, 10801), (304, 10846), (305, 10852), (316, 10894), (317, 10903), (324, 10924), (326, 10936), (339, 11014), (345, 11035), (346, 11041), (352, 11062), (357, 11086), (371, 11140), (405, 11254), (411, 11293), (416, 11311), (442, 11425), (446, 11446), (453, 11518), (454, 11524), (460, 11566), (486, 11665), (491, 11686), (496, 11707), (503, 11734), (505, 11755), (506, 11758), (509, 11770), (510, 11773), (514, 11782), (516, 11794), (535, 11899), (539, 11908), (545, 11929), (547, 11941), (549, 11947), (553, 11965), (554, 11968), (570, 12052), (572, 12073), (574, 12079), (577, 12097), (578, 12100), (581, 12130), (586, 12166), (588, 12181), (597, 12214), (609, 12298), (611, 12322), (623, 12388), (625, 12394), (630, 12415), (634, 12439), (639, 12460), (672, 12598), (678, 12628), (681, 12649), (731, 12832), (756, 12973), (795, 13207), (810, 13297), (820, 13339), (832, 13384), (843, 13432), (895, 13552), (902, 13618), (904, 13639), (909, 13660), (910, 13666), (929, 13792), (933, 13813), (934, 13816), (941, 13858), (948, 13924), (949, 13942), (950, 13945), (954, 13978), (966, 14056), (972, 14077), (984, 14128),

Gene: Archis_18 Start: 10485, Stop: 16007, Start Num: 10

Candidate Starts for Archis_18:

(Start: 10 @10485 has 26 MA's), (12, 10500), (Start: 13 @10506 has 1 MA's), (Start: 15 @10536 has 1 MA's), (16, 10545), (17, 10548), (18, 10590), (29, 10701), (31, 10722), (Start: 40 @10842 has 14 MA's), (48, 10884), (62, 10950), (66, 10968), (72, 10989), (73, 10992), (77, 11010), (82, 11034), (100, 11118), (102, 11124), (111, 11160), (113, 11175), (115, 11184), (156, 11352), (161, 11379), (185, 11496), (219, 11667), (225, 11697), (266, 11901), (274, 11946), (278, 11973), (281, 11985), (298, 12075), (308, 12120), (315, 12147), (320, 12177), (334, 12264), (335, 12267), (342, 12306), (361, 12390), (371, 12426), (380, 12468), (392, 12513), (394, 12519), (397, 12531), (398, 12534), (408, 12588), (414, 12627), (418, 12648), (419, 12651), (420, 12669), (422, 12678), (428, 12696), (434, 12717), (436, 12723), (441, 12744), (446, 12771), (454, 12849), (503, 13038), (506, 13062), (509, 13074), (510, 13077), (515, 13092), (518, 13107), (519, 13110), (529, 13161), (548, 13242), (549, 13245), (569, 13278), (575, 13308), (580, 13332), (634, 13665), (642, 13713), (646, 13758), (647, 13761), (653, 13776), (663, 13821), (664, 13830), (666, 13839), (676, 13890), (689, 13962), (696, 13980), (703, 14001), (727, 14100), (728, 14103), (731, 14136), (740, 14202), (742, 14220), (745, 14235), (751, 14268), (762, 14319), (770, 14370), (776, 14418), (805, 14613), (806, 14616), (821, 14688), (822, 14691), (837, 14757), (838, 14760), (841, 14778), (849, 14838), (856, 14895), (857,

14913), (864, 14994), (865, 14997), (866, 15012), (883, 15171), (890, 15225), (900, 15291), (907, 15345), (909, 15357), (910, 15363), (916, 15393), (929, 15486), (934, 15510), (938, 15528), (941, 15552), (942, 15558), (945, 15579), (948, 15618), (969, 15759), (982, 15822), (986, 15840), (991, 15897), (999, 15990),

Gene: Axym_16 Start: 9629, Stop: 14767, Start Num: 22

Candidate Starts for Axym_16:

(19, 9605), (Start: 22 @9629 has 37 MA's), (25, 9656), (36, 9785), (43, 9860), (78, 10013), (79, 10016), (99, 10112), (102, 10121), (108, 10151), (111, 10157), (113, 10172), (114, 10175), (119, 10196), (135, 10268), (138, 10289), (158, 10355), (161, 10376), (185, 10493), (216, 10655), (225, 10694), (243, 10769), (271, 10928), (274, 10940), (278, 10967), (285, 11012), (289, 11024), (308, 11114), (313, 11132), (316, 11153), (321, 11183), (327, 11207), (329, 11219), (334, 11258), (340, 11291), (364, 11393), (365, 11396), (371, 11420), (394, 11513), (398, 11528), (404, 11567), (414, 11621), (420, 11663), (423, 11675), (432, 11705), (440, 11735), (441, 11738), (455, 11846), (456, 11849), (462, 11900), (484, 11975), (504, 12065), (506, 12077), (518, 12122), (522, 12143), (523, 12146), (524, 12149), (540, 12224), (549, 12257), (554, 12278), (557, 12308), (569, 12356), (570, 12362), (574, 12389), (597, 12524), (613, 12641), (618, 12674), (622, 12695), (623, 12698), (637, 12764), (639, 12770), (641, 12785), (666, 12905), (668, 12914), (683, 12998), (756, 13319), (792, 13538), (798, 13574), (839, 13787), (874, 13979), (881, 14027), (884, 14048), (900, 14156), (909, 14222), (912, 14240), (923, 14300), (929, 14345), (935, 14375), (937, 14384), (941, 14414), (948, 14480), (953, 14528), (961, 14588), (980, 14675), (989, 14738),

Gene: Azira_18 Start: 10619, Stop: 15748, Start Num: 22

Candidate Starts for Azira_18:

(19, 10598), (Start: 22 @10619 has 37 MA's), (25, 10646), (36, 10775), (48, 10871), (58, 10922), (74, 10979), (80, 11012), (81, 11015), (99, 11102), (103, 11114), (113, 11162), (114, 11165), (115, 11171), (126, 11225), (128, 11231), (138, 11279), (158, 11345), (161, 11366), (243, 11759), (244, 11762), (263, 11864), (274, 11930), (275, 11936), (278, 11957), (320, 12161), (322, 12179), (324, 12185), (327, 12197), (329, 12209), (334, 12248), (336, 12260), (344, 12296), (357, 12353), (362, 12377), (364, 12383), (394, 12503), (398, 12518), (404, 12557), (418, 12632), (423, 12665), (428, 12680), (429, 12686), (431, 12692), (441, 12728), (455, 12836), (466, 12908), (483, 12962), (506, 13067), (518, 13112), (523, 13136), (533, 13196), (538, 13208), (540, 13214), (547, 13241), (548, 13244), (549, 13247), (568, 13340), (569, 13346), (577, 13397), (586, 13466), (593, 13499), (597, 13514), (598, 13520), (606, 13577), (608, 13589), (612, 13628), (613, 13631), (617, 13652), (618, 13664), (622, 13685), (623, 13688), (632, 13727), (634, 13739), (637, 13754), (666, 13895), (683, 13991), (703, 14057), (710, 14078), (713, 14084), (756, 14321), (761, 14351), (768, 14390), (787, 14525), (796, 14555), (798, 14576), (827, 14735), (833, 14768), (874, 14981), (880, 14999), (881, 15005), (900, 15134), (909, 15200), (918, 15251), (929, 15323), (937, 15362), (941, 15392), (946, 15425), (948, 15458), (956, 15530), (970, 15602), (980, 15656), (982, 15662), (989, 15719),

Gene: BBQValindra_17 Start: 10583, Stop: 15709, Start Num: 20

Candidate Starts for BBQValindra_17:

(Start: 20 @10583 has 13 MA's), (Start: 22 @10592 has 37 MA's), (51, 10865), (53, 10874), (60, 10904), (77, 10970), (112, 11126), (115, 11144), (148, 11297), (161, 11339), (178, 11426), (216, 11618), (244, 11735), (251, 11774), (266, 11858), (268, 11867), (271, 11891), (273, 11900), (275, 11909), (281, 11942), (282, 11954), (286, 11978), (296, 12023), (298, 12032), (307, 12068), (315, 12104), (316, 12116), (320, 12134), (327, 12170), (351, 12293), (359, 12335), (365, 12359), (392, 12470), (393, 12473), (394, 12476), (398, 12491), (408, 12545), (414, 12584), (431, 12665), (436, 12680), (441, 12701), (444, 12716), (446, 12728), (450, 12764), (453, 12800), (494, 12962), (526, 13019), (536, 13031), (537, 13034), (549, 13067), (550, 13073), (553, 13085), (568, 13160), (569, 13166), (570, 13172), (572, 13193), (573, 13196), (574, 13199), (583, 13262), (588, 13298), (592, 13313), (598, 13337), (600, 13352), (601, 13355), (609, 13415), (626, 13514), (634, 13556), (645, 13634), (666, 13703), (669, 13721), (690, 13829), (693, 13832), (694, 13838), (701, 13856), (702,

13859), (709, 13880), (716, 13898), (717, 13901), (718, 13910), (737, 14015), (739, 14045), (741, 14063), (744, 14069), (755, 14129), (767, 14189), (775, 14237), (779, 14267), (789, 14315), (793, 14327), (800, 14387), (809, 14444), (815, 14462), (824, 14507), (830, 14534), (834, 14552), (840, 14582), (842, 14591), (846, 14630), (847, 14636), (850, 14645), (865, 14804), (870, 14846), (896, 15038), (897, 15041), (902, 15098), (903, 15107), (904, 15119), (909, 15140), (944, 15353), (948, 15392), (956, 15461), (964, 15515), (993, 15668), (995, 15692),

Gene: BackstagePass_17 Start: 10561, Stop: 15849, Start Num: 20

Candidate Starts for BackstagePass_17:

(Start: 20 @10561 has 13 MA's), (Start: 22 @10570 has 37 MA's), (51, 10843), (53, 10852), (60, 10882), (76, 10945), (79, 10957), (82, 10972), (Start: 87 @10999 has 7 MA's), (105, 11083), (112, 11104), (118, 11131), (120, 11143), (148, 11275), (161, 11317), (172, 11371), (178, 11404), (219, 11605), (238, 11683), (266, 11836), (271, 11869), (273, 11878), (275, 11887), (281, 11920), (282, 11932), (286, 11956), (296, 12001), (308, 12055), (314, 12079), (315, 12082), (316, 12094), (320, 12112), (327, 12148), (351, 12271), (359, 12313), (392, 12448), (394, 12454), (398, 12469), (413, 12559), (414, 12562), (419, 12586), (422, 12613), (432, 12646), (436, 12658), (441, 12679), (446, 12706), (453, 12778), (496, 12949), (497, 12952), (501, 12964), (503, 12973), (521, 13057), (530, 13102), (549, 13174), (553, 13192), (557, 13225), (559, 13237), (569, 13273), (574, 13306), (581, 13357), (588, 13405), (598, 13444), (600, 13459), (601, 13462), (602, 13468), (608, 13513), (626, 13621), (634, 13663), (645, 13741), (654, 13765), (666, 13810), (690, 13933), (693, 13936), (702, 13963), (709, 13984), (716, 14002), (717, 14005), (718, 14014), (737, 14119), (744, 14173), (781, 14398), (785, 14434), (800, 14524), (805, 14566), (824, 14647), (830, 14674), (834, 14692), (842, 14731), (846, 14770), (847, 14776), (850, 14785), (865, 14944), (870, 14986), (896, 15178), (897, 15181), (903, 15247), (904, 15259), (909, 15280), (911, 15283), (944, 15493), (948, 15532), (956, 15601), (964, 15655), (993, 15808),

Gene: Balloona_15 Start: 9534, Stop: 14471, Start Num: 36

Candidate Starts for Balloona_15:

(Start: 22 @9378 has 37 MA's), (36, 9534), (54, 9663), (61, 9693), (78, 9762), (81, 9774), (88, 9810), (99, 9861), (102, 9870), (111, 9906), (115, 9930), (128, 9990), (139, 10044), (148, 10083), (151, 10089), (158, 10104), (161, 10125), (192, 10296), (205, 10359), (216, 10404), (236, 10485), (266, 10644), (271, 10677), (274, 10689), (278, 10716), (289, 10773), (295, 10803), (297, 10815), (319, 10917), (320, 10920), (334, 11007), (344, 11055), (371, 11169), (394, 11262), (398, 11277), (402, 11298), (408, 11331), (412, 11361), (415, 11373), (420, 11412), (427, 11436), (428, 11439), (435, 11463), (441, 11487), (454, 11592), (475, 11670), (483, 11700), (484, 11703), (492, 11739), (503, 11781), (506, 11805), (510, 11820), (515, 11835), (518, 11850), (523, 11874), (530, 11913), (532, 11928), (533, 11934), (547, 11979), (549, 11985), (572, 12111), (579, 12141), (584, 12192), (591, 12228), (596, 12249), (597, 12252), (607, 12324), (613, 12369), (618, 12402), (622, 12423), (634, 12477), (645, 12552), (668, 12636), (683, 12723), (733, 12909), (756, 13041), (761, 13071), (782, 13209), (793, 13260), (798, 13290), (827, 13455), (833, 13485), (867, 13665), (875, 13716), (881, 13743), (884, 13764), (900, 13860), (905, 13908), (909, 13926), (929, 14049), (934, 14073), (937, 14088), (941, 14118), (945, 14145), (946, 14151), (948, 14184), (955, 14253), (956, 14256), (961, 14292), (981, 14382),

Gene: Barco_17 Start: 10274, Stop: 15796, Start Num: 10

Candidate Starts for Barco_17:

(Start: 10 @10274 has 26 MA's), (12, 10289), (Start: 13 @10295 has 1 MA's), (Start: 15 @10325 has 1 MA's), (16, 10334), (17, 10337), (18, 10379), (29, 10490), (31, 10511), (Start: 40 @10631 has 14 MA's), (48, 10673), (62, 10739), (66, 10757), (72, 10778), (73, 10781), (77, 10799), (82, 10823), (100, 10907), (101, 10910), (111, 10949), (113, 10964), (115, 10973), (156, 11141), (161, 11168), (185, 11285), (219, 11456), (225, 11486), (266, 11690), (274, 11735), (278, 11762), (281, 11774), (298, 11864), (308, 11909), (315, 11936), (320, 11966), (334, 12053), (335, 12056), (342, 12095), (361, 12179), (371, 12215), (380, 12257), (392, 12302), (394, 12308), (397, 12320), (398, 12323), (408,

12377), (414, 12416), (418, 12437), (419, 12440), (420, 12458), (422, 12467), (428, 12485), (434, 12506), (436, 12512), (441, 12533), (446, 12560), (454, 12638), (503, 12827), (506, 12851), (509, 12863), (510, 12866), (515, 12881), (518, 12896), (519, 12899), (529, 12950), (548, 13031), (549, 13034), (569, 13067), (575, 13097), (580, 13121), (634, 13454), (642, 13502), (646, 13547), (647, 13550), (653, 13565), (663, 13610), (664, 13619), (666, 13628), (676, 13679), (689, 13751), (696, 13769), (703, 13790), (727, 13889), (728, 13892), (731, 13925), (740, 13991), (742, 14009), (745, 14024), (751, 14057), (762, 14108), (770, 14159), (776, 14207), (805, 14402), (806, 14405), (821, 14477), (822, 14480), (837, 14546), (838, 14549), (841, 14567), (849, 14627), (856, 14684), (857, 14702), (864, 14783), (865, 14786), (866, 14801), (890, 15014), (900, 15080), (907, 15134), (909, 15146), (910, 15152), (929, 15275), (934, 15299), (938, 15317), (941, 15341), (942, 15347), (945, 15368), (948, 15407), (969, 15548), (973, 15560), (982, 15611), (986, 15629), (999, 15779),

Gene: Bavilard_16 Start: 10158, Stop: 15257, Start Num: 22

Candidate Starts for Bavilard_16:

(Start: 22 @10158 has 37 MA's), (36, 10314), (54, 10443), (61, 10473), (72, 10515), (78, 10542), (88, 10590), (99, 10641), (102, 10650), (111, 10686), (115, 10710), (128, 10770), (139, 10824), (148, 10863), (151, 10869), (158, 10884), (161, 10905), (190, 11064), (192, 11076), (205, 11139), (216, 11184), (236, 11265), (266, 11424), (271, 11457), (274, 11469), (278, 11496), (289, 11553), (295, 11583), (297, 11595), (319, 11697), (320, 11700), (334, 11787), (343, 11832), (344, 11835), (371, 11949), (394, 12042), (398, 12057), (402, 12078), (408, 12111), (412, 12141), (415, 12153), (420, 12192), (427, 12216), (428, 12219), (435, 12243), (441, 12267), (454, 12372), (464, 12420), (475, 12450), (479, 12465), (483, 12480), (492, 12519), (503, 12561), (506, 12585), (510, 12600), (515, 12615), (518, 12630), (523, 12654), (530, 12693), (532, 12708), (533, 12714), (541, 12735), (547, 12759), (549, 12765), (572, 12891), (579, 12921), (582, 12957), (583, 12960), (591, 13008), (596, 13029), (597, 13032), (607, 13104), (613, 13149), (618, 13182), (622, 13203), (634, 13257), (645, 13332), (668, 13416), (683, 13503), (733, 13689), (756, 13821), (761, 13851), (782, 13989), (793, 14040), (798, 14070), (816, 14175), (827, 14226), (833, 14256), (867, 14436), (875, 14487), (881, 14529), (884, 14550), (900, 14646), (909, 14712), (929, 14835), (934, 14859), (937, 14874), (941, 14904), (945, 14931), (946, 14937), (948, 14970), (955, 15039), (956, 15042), (961, 15078), (981, 15168),

Gene: BigChungus_15 Start: 9403, Stop: 14511, Start Num: 22

Candidate Starts for BigChungus_15:

(Start: 22 @9403 has 37 MA's), (36, 9559), (54, 9688), (61, 9718), (78, 9787), (81, 9799), (88, 9835), (99, 9886), (102, 9895), (111, 9931), (115, 9955), (128, 10015), (139, 10069), (148, 10108), (151, 10114), (158, 10129), (161, 10150), (192, 10321), (205, 10384), (216, 10429), (236, 10510), (266, 10669), (271, 10702), (274, 10714), (278, 10741), (289, 10798), (295, 10828), (297, 10840), (319, 10942), (320, 10945), (334, 11032), (344, 11080), (371, 11194), (394, 11287), (398, 11302), (402, 11323), (408, 11356), (412, 11386), (415, 11398), (420, 11437), (427, 11461), (428, 11464), (435, 11488), (441, 11512), (454, 11617), (475, 11695), (483, 11725), (484, 11728), (492, 11764), (503, 11806), (506, 11830), (510, 11845), (515, 11860), (518, 11875), (523, 11899), (530, 11938), (532, 11953), (533, 11959), (547, 12004), (549, 12010), (572, 12136), (579, 12166), (582, 12202), (583, 12205), (591, 12253), (596, 12274), (597, 12277), (607, 12349), (613, 12394), (618, 12427), (622, 12448), (634, 12502), (645, 12577), (668, 12661), (683, 12748), (756, 13066), (761, 13096), (782, 13234), (793, 13285), (798, 13315), (827, 13480), (833, 13510), (867, 13690), (875, 13741), (881, 13783), (884, 13804), (900, 13900), (905, 13948), (909, 13966), (929, 14089), (934, 14113), (937, 14128), (941, 14158), (945, 14185), (946, 14191), (948, 14224), (955, 14293), (956, 14296), (961, 14332), (981, 14422),

Gene: BillDoor_18 Start: 9610, Stop: 14400, Start Num: 91

Candidate Starts for BillDoor_18:

(Start: 91 @9610 has 16 MA's), (Start: 97 @9637 has 1 MA's), (117, 9715), (129, 9766), (149, 9853), (157, 9868), (169, 9925), (172, 9943), (175, 9970), (177, 9973), (190, 10042), (202, 10099), (212,

10144), (216, 10162), (227, 10207), (237, 10243), (244, 10276), (253, 10324), (255, 10327), (262, 10375), (269, 10414), (270, 10429), (310, 10621), (315, 10639), (331, 10723), (362, 10870), (370, 10897), (392, 10990), (394, 10996), (398, 11011), (404, 11050), (407, 11062), (419, 11128), (436, 11200), (440, 11218), (441, 11221), (446, 11248), (462, 11383), (484, 11458), (492, 11494), (506, 11560), (518, 11605), (522, 11626), (523, 11629), (524, 11632), (530, 11668), (540, 11707), (542, 11713), (549, 11740), (573, 11869), (574, 11872), (577, 11890), (598, 12013), (600, 12028), (618, 12157), (622, 12178), (632, 12220), (637, 12247), (639, 12253), (665, 12385), (668, 12397), (683, 12484), (694, 12526), (706, 12562), (735, 12688), (738, 12727), (764, 12856), (772, 12913), (777, 12958), (796, 13051), (802, 13126), (817, 13189), (833, 13270), (839, 13291), (860, 13468), (862, 13474), (887, 13693), (898, 13771), (900, 13789), (901, 13795), (909, 13855), (912, 13873), (918, 13906), (929, 13978), (937, 14017), (941, 14047), (948, 14113), (953, 14161), (961, 14221), (981, 14311), (989, 14371),

Gene: Biskit_17 Start: 9616, Stop: 14415, Start Num: 91

Candidate Starts for Biskit_17:

(Start: 91 @9616 has 16 MA's), (Start: 97 @9643 has 1 MA's), (129, 9772), (157, 9874), (165, 9919), (169, 9931), (172, 9949), (175, 9976), (177, 9979), (181, 9994), (189, 10045), (190, 10048), (202, 10105), (203, 10108), (212, 10150), (216, 10168), (227, 10213), (237, 10249), (244, 10282), (250, 10315), (252, 10327), (262, 10381), (269, 10420), (270, 10435), (272, 10444), (277, 10471), (285, 10522), (295, 10564), (299, 10582), (301, 10591), (315, 10645), (325, 10708), (329, 10723), (340, 10786), (362, 10876), (370, 10903), (392, 10996), (394, 11002), (398, 11017), (404, 11056), (419, 11134), (424, 11167), (436, 11206), (440, 11224), (441, 11227), (446, 11254), (452, 11311), (454, 11332), (463, 11395), (475, 11431), (478, 11443), (484, 11464), (492, 11500), (503, 11542), (504, 11554), (506, 11566), (518, 11611), (519, 11614), (522, 11632), (523, 11635), (524, 11638), (540, 11713), (542, 11719), (549, 11746), (558, 11806), (561, 11821), (572, 11872), (573, 11875), (574, 11878), (577, 11896), (592, 11995), (596, 12010), (597, 12013), (618, 12163), (622, 12184), (632, 12226), (637, 12253), (639, 12259), (665, 12391), (668, 12403), (683, 12490), (694, 12532), (706, 12568), (726, 12643), (735, 12694), (738, 12733), (752, 12811), (764, 12862), (772, 12919), (796, 13057), (802, 13132), (833, 13276), (839, 13297), (860, 13474), (862, 13480), (900, 13804), (901, 13810), (909, 13870), (912, 13888), (918, 13921), (929, 13993), (937, 14032), (941, 14062), (948, 14128), (953, 14176), (961, 14236), (981, 14326), (989, 14386),

Gene: BlingBling_17 Start: 10274, Stop: 15796, Start Num: 10

Candidate Starts for BlingBling_17:

(Start: 10 @10274 has 26 MA's), (12, 10289), (Start: 13 @10295 has 1 MA's), (Start: 15 @10325 has 1 MA's), (16, 10334), (17, 10337), (18, 10379), (29, 10490), (31, 10511), (Start: 40 @10631 has 14 MA's), (48, 10673), (62, 10739), (66, 10757), (72, 10778), (73, 10781), (77, 10799), (82, 10823), (100, 10907), (101, 10910), (111, 10949), (113, 10964), (115, 10973), (156, 11141), (161, 11168), (185, 11285), (219, 11456), (225, 11486), (266, 11690), (274, 11735), (278, 11762), (281, 11774), (298, 11864), (308, 11909), (315, 11936), (320, 11966), (334, 12053), (335, 12056), (342, 12095), (361, 12179), (371, 12215), (380, 12257), (392, 12302), (394, 12308), (397, 12320), (398, 12323), (408, 12377), (414, 12416), (418, 12437), (419, 12440), (420, 12458), (422, 12467), (428, 12485), (434, 12506), (436, 12512), (441, 12533), (446, 12560), (454, 12638), (503, 12827), (506, 12851), (509, 12863), (510, 12866), (515, 12881), (518, 12896), (519, 12899), (529, 12950), (548, 13031), (549, 13034), (569, 13067), (575, 13097), (580, 13121), (634, 13454), (642, 13502), (646, 13547), (647, 13550), (653, 13565), (663, 13610), (664, 13619), (666, 13628), (676, 13679), (689, 13751), (696, 13769), (703, 13790), (727, 13889), (728, 13892), (731, 13925), (740, 13991), (742, 14009), (745, 14024), (751, 14057), (762, 14108), (770, 14159), (776, 14207), (805, 14402), (806, 14405), (821, 14477), (822, 14480), (837, 14546), (838, 14549), (841, 14567), (849, 14627), (856, 14684), (857, 14702), (864, 14783), (865, 14786), (866, 14801), (890, 15014), (900, 15080), (907, 15134), (909, 15146), (910, 15152), (929, 15275), (934, 15299), (938, 15317), (941, 15341), (942, 15347), (945, 15368), (948, 15407), (969, 15548), (973, 15560), (982, 15611), (986, 15629), (999, 15779),

Gene: Blondies_17 Start: 9629, Stop: 14398, Start Num: 97

Candidate Starts for Blondies_17:

(Start: 91 @9602 has 16 MA's), (Start: 97 @9629 has 1 MA's), (98, 9635), (129, 9758), (157, 9860), (165, 9905), (169, 9917), (172, 9935), (175, 9962), (177, 9965), (181, 9980), (189, 10031), (190, 10034), (202, 10091), (203, 10094), (204, 10097), (212, 10136), (216, 10154), (227, 10199), (237, 10235), (244, 10268), (250, 10301), (252, 10313), (262, 10367), (269, 10406), (270, 10421), (272, 10430), (277, 10457), (285, 10508), (299, 10568), (301, 10577), (315, 10631), (325, 10694), (329, 10709), (340, 10772), (362, 10862), (370, 10889), (392, 10982), (394, 10988), (398, 11003), (404, 11042), (419, 11120), (424, 11153), (436, 11192), (440, 11210), (441, 11213), (446, 11240), (452, 11297), (454, 11318), (463, 11381), (478, 11429), (484, 11450), (492, 11486), (503, 11528), (506, 11552), (518, 11597), (519, 11600), (522, 11618), (523, 11621), (524, 11624), (540, 11699), (542, 11705), (549, 11732), (558, 11792), (572, 11858), (573, 11861), (574, 11864), (577, 11882), (592, 11981), (596, 11996), (597, 11999), (618, 12149), (622, 12170), (632, 12212), (637, 12239), (639, 12245), (665, 12377), (668, 12389), (683, 12476), (694, 12518), (706, 12554), (726, 12629), (735, 12680), (738, 12719), (764, 12848), (772, 12905), (796, 13043), (802, 13118), (833, 13262), (839, 13283), (860, 13457), (862, 13463), (900, 13787), (901, 13793), (909, 13853), (912, 13871), (918, 13904), (929, 13976), (937, 14015), (941, 14045), (948, 14111), (953, 14159), (961, 14219), (981, 14309), (989, 14369),

Gene: Bowser_17 Start: 10588, Stop: 15702, Start Num: 20

Candidate Starts for Bowser_17:

(Start: 20 @10588 has 13 MA's), (Start: 22 @10597 has 37 MA's), (51, 10870), (53, 10879), (60, 10909), (63, 10918), (77, 10975), (90, 11038), (105, 11110), (112, 11131), (115, 11149), (148, 11302), (161, 11344), (172, 11398), (217, 11626), (244, 11740), (251, 11779), (266, 11863), (271, 11896), (273, 11905), (275, 11914), (281, 11947), (282, 11959), (286, 11983), (296, 12028), (307, 12073), (315, 12109), (316, 12121), (320, 12139), (327, 12175), (351, 12298), (356, 12322), (359, 12340), (392, 12475), (394, 12481), (397, 12493), (398, 12496), (408, 12550), (414, 12589), (418, 12610), (419, 12613), (420, 12631), (422, 12640), (436, 12685), (441, 12706), (446, 12733), (454, 12811), (494, 12967), (526, 13024), (536, 13036), (537, 13039), (549, 13072), (553, 13090), (568, 13165), (569, 13171), (570, 13177), (572, 13198), (573, 13201), (574, 13204), (583, 13267), (588, 13303), (592, 13318), (598, 13342), (600, 13357), (601, 13360), (602, 13366), (608, 13411), (609, 13420), (626, 13519), (634, 13561), (647, 13645), (666, 13708), (669, 13726), (690, 13834), (694, 13843), (701, 13861), (702, 13864), (716, 13903), (717, 13906), (718, 13915), (739, 14050), (744, 14074), (767, 14194), (774, 14239), (779, 14272), (789, 14320), (793, 14332), (800, 14392), (824, 14512), (830, 14539), (834, 14557), (846, 14635), (847, 14641), (850, 14650), (859, 14770), (865, 14809), (870, 14851), (879, 14944), (896, 15037), (897, 15040), (902, 15097), (903, 15106), (904, 15118), (909, 15139), (924, 15244), (944, 15352), (948, 15391), (956, 15460), (964, 15514), (993, 15664),

Gene: Bubble_16 Start: 9629, Stop: 14767, Start Num: 22

Candidate Starts for Bubble_16:

(19, 9605), (Start: 22 @9629 has 37 MA's), (25, 9656), (36, 9785), (43, 9860), (78, 10013), (79, 10016), (99, 10112), (102, 10121), (108, 10151), (111, 10157), (113, 10172), (114, 10175), (119, 10196), (135, 10268), (138, 10289), (158, 10355), (161, 10376), (185, 10493), (216, 10655), (225, 10694), (243, 10769), (271, 10928), (274, 10940), (278, 10967), (285, 11012), (289, 11024), (308, 11114), (313, 11132), (316, 11153), (321, 11183), (327, 11207), (329, 11219), (334, 11258), (340, 11291), (364, 11393), (365, 11396), (371, 11420), (373, 11426), (394, 11513), (398, 11528), (404, 11567), (414, 11621), (432, 11705), (440, 11735), (441, 11738), (455, 11846), (456, 11849), (462, 11900), (484, 11975), (506, 12077), (518, 12122), (522, 12143), (523, 12146), (524, 12149), (540, 12224), (549, 12257), (554, 12278), (557, 12308), (569, 12356), (570, 12362), (574, 12389), (597, 12524), (613, 12641), (618, 12674), (622, 12695), (637, 12764), (639, 12770), (641, 12785), (666, 12905), (668, 12914), (683, 12998), (756, 13319), (792, 13538), (798, 13574), (839, 13787), (874, 13979), (881, 14027), (884, 14048), (900, 14156), (909, 14222), (912, 14240), (923, 14300), (929, 14345), (935, 14375), (937, 14384), (941, 14414), (948, 14480), (953, 14528), (961, 14588), (980, 14675), (989,

14738),

Gene: Bunker_17 Start: 10580, Stop: 15829, Start Num: 20

Candidate Starts for Bunker_17:

(Start: 20 @10580 has 13 MA's), (Start: 22 @10589 has 37 MA's), (35, 10736), (51, 10862), (53, 10871), (68, 10934), (70, 10940), (72, 10946), (77, 10967), (82, 10991), (88, 11021), (90, 11030), (112, 11123), (114, 11135), (115, 11141), (148, 11294), (161, 11336), (172, 11390), (178, 11423), (219, 11624), (266, 11855), (271, 11888), (273, 11897), (275, 11906), (281, 11939), (282, 11951), (286, 11975), (296, 12020), (298, 12029), (315, 12101), (316, 12113), (320, 12131), (327, 12167), (351, 12290), (356, 12314), (383, 12431), (392, 12467), (394, 12473), (398, 12488), (408, 12542), (414, 12581), (418, 12602), (419, 12605), (420, 12623), (422, 12632), (436, 12677), (440, 12695), (441, 12698), (446, 12725), (454, 12803), (496, 12968), (501, 12983), (503, 12992), (521, 13076), (547, 13187), (549, 13193), (550, 13199), (557, 13244), (559, 13256), (569, 13292), (570, 13298), (572, 13319), (574, 13325), (575, 13331), (581, 13376), (583, 13388), (588, 13424), (598, 13463), (600, 13478), (601, 13481), (602, 13487), (608, 13532), (634, 13682), (645, 13760), (647, 13766), (666, 13832), (669, 13850), (690, 13958), (693, 13961), (701, 13985), (702, 13988), (716, 14027), (717, 14030), (718, 14039), (728, 14087), (739, 14174), (744, 14198), (755, 14258), (767, 14318), (779, 14396), (789, 14444), (793, 14456), (800, 14516), (824, 14633), (830, 14660), (846, 14756), (847, 14762), (850, 14771), (865, 14930), (870, 14972), (903, 15230), (904, 15242), (909, 15263), (911, 15266), (913, 15284), (944, 15476), (948, 15515), (964, 15638), (993, 15788), (995, 15812),

Gene: Burnsey_16 Start: 9630, Stop: 14768, Start Num: 22

Candidate Starts for Burnsey_16:

(19, 9606), (Start: 22 @9630 has 37 MA's), (25, 9657), (36, 9786), (43, 9861), (78, 10014), (79, 10017), (99, 10113), (102, 10122), (108, 10152), (111, 10158), (113, 10173), (114, 10176), (119, 10197), (138, 10290), (158, 10356), (161, 10377), (185, 10494), (216, 10656), (225, 10695), (243, 10770), (271, 10929), (274, 10941), (278, 10968), (285, 11013), (289, 11025), (308, 11115), (313, 11133), (316, 11154), (321, 11184), (327, 11208), (329, 11220), (334, 11259), (340, 11292), (364, 11394), (365, 11397), (371, 11421), (394, 11514), (398, 11529), (404, 11568), (420, 11664), (431, 11703), (432, 11706), (441, 11739), (455, 11847), (456, 11850), (462, 11901), (484, 11976), (506, 12078), (518, 12123), (522, 12144), (523, 12147), (524, 12150), (540, 12225), (549, 12258), (554, 12279), (557, 12309), (569, 12357), (570, 12363), (574, 12390), (597, 12525), (613, 12642), (618, 12675), (622, 12696), (623, 12699), (637, 12765), (639, 12771), (641, 12786), (666, 12906), (668, 12915), (683, 12999), (756, 13320), (792, 13539), (798, 13575), (839, 13788), (874, 13980), (881, 14028), (884, 14049), (900, 14157), (909, 14223), (912, 14241), (923, 14301), (929, 14346), (935, 14376), (937, 14385), (941, 14415), (948, 14481), (953, 14529), (961, 14589), (980, 14676), (989, 14739),

Gene: Button_17 Start: 9644, Stop: 13834, Start Num: 95

Candidate Starts for Button_17:

(Start: 87 @9617 has 7 MA's), (Start: 95 @9644 has 1 MA's), (148, 9890), (167, 9953), (179, 10010), (184, 10037), (189, 10079), (202, 10142), (205, 10157), (209, 10175), (214, 10193), (216, 10205), (224, 10238), (233, 10280), (238, 10295), (258, 10400), (262, 10424), (269, 10463), (272, 10487), (277, 10514), (282, 10544), (285, 10565), (297, 10619), (301, 10634), (328, 10763), (353, 10895), (355, 10904), (362, 10940), (398, 11081), (402, 11102), (408, 11135), (410, 11153), (413, 11171), (420, 11216), (436, 11270), (441, 11291), (464, 11354), (480, 11402), (483, 11414), (492, 11453), (504, 11507), (510, 11534), (513, 11540), (518, 11564), (519, 11567), (530, 11627), (538, 11660), (549, 11699), (553, 11717), (554, 11720), (583, 11762), (584, 11774), (590, 11807), (596, 11831), (600, 11855), (601, 11858), (617, 11972), (618, 11984), (625, 12014), (627, 12023), (629, 12029), (670, 12182), (679, 12242), (682, 12251), (683, 12257), (693, 12293), (732, 12425), (756, 12563), (760, 12587), (793, 12785), (794, 12788), (820, 12950), (826, 12974), (827, 12977), (863, 13079), (893, 13184), (902, 13256), (905, 13280), (908, 13292), (912, 13316), (916, 13328), (928, 13412), (929, 13418), (938, 13460), (941, 13481), (946, 13514), (948, 13547), (950, 13568), (953, 13595), (961, 13655), (967, 13682), (970, 13691), (974, 13703), (989, 13805),

Gene: Buttrmlkdreams_16 Start: 9601, Stop: 14397, Start Num: 91

Candidate Starts for Buttrmlkdreams_16:

(Start: 91 @9601 has 16 MA's), (Start: 97 @9628 has 1 MA's), (98, 9634), (129, 9757), (157, 9859), (165, 9904), (169, 9916), (172, 9934), (175, 9961), (177, 9964), (181, 9979), (189, 10030), (190, 10033), (202, 10090), (203, 10093), (212, 10135), (216, 10153), (227, 10198), (237, 10234), (244, 10267), (250, 10300), (252, 10312), (262, 10366), (269, 10405), (270, 10420), (272, 10429), (277, 10456), (285, 10507), (299, 10567), (301, 10576), (315, 10630), (325, 10693), (329, 10708), (362, 10861), (370, 10888), (388, 10969), (392, 10981), (394, 10987), (398, 11002), (403, 11032), (404, 11041), (419, 11119), (424, 11152), (436, 11191), (440, 11209), (441, 11212), (446, 11239), (452, 11296), (454, 11317), (463, 11380), (478, 11428), (484, 11449), (492, 11485), (503, 11527), (506, 11551), (518, 11596), (519, 11599), (522, 11617), (523, 11620), (524, 11623), (540, 11698), (542, 11704), (549, 11731), (558, 11791), (572, 11857), (573, 11860), (574, 11863), (577, 11881), (592, 11980), (596, 11995), (597, 11998), (618, 12148), (622, 12169), (632, 12211), (637, 12238), (639, 12244), (668, 12388), (683, 12475), (694, 12517), (706, 12553), (726, 12628), (735, 12679), (738, 12718), (764, 12847), (772, 12904), (796, 13042), (802, 13117), (833, 13261), (839, 13282), (860, 13456), (862, 13462), (900, 13786), (901, 13792), (909, 13852), (918, 13903), (929, 13975), (937, 14014), (941, 14044), (948, 14110), (953, 14158), (961, 14218), (981, 14308), (989, 14368),

Gene: Cafasso_17 Start: 10946, Stop: 15646, Start Num: 40

Candidate Starts for Cafasso_17:

(Start: 40 @10946 has 14 MA's), (75, 11105), (103, 11228), (132, 11363), (153, 11450), (155, 11453), (161, 11480), (166, 11507), (168, 11513), (169, 11516), (210, 11735), (217, 11762), (293, 12137), (301, 12170), (303, 12179), (309, 12209), (312, 12221), (318, 12257), (328, 12302), (332, 12323), (333, 12332), (335, 12347), (348, 12395), (353, 12416), (372, 12491), (374, 12503), (381, 12536), (382, 12539), (386, 12557), (387, 12563), (396, 12590), (398, 12599), (399, 12602), (407, 12644), (409, 12653), (417, 12701), (430, 12764), (455, 12902), (457, 12911), (481, 12998), (485, 13010), (489, 13031), (490, 13037), (498, 13064), (499, 13067), (507, 13115), (510, 13124), (522, 13166), (525, 13178), (543, 13220), (548, 13241), (551, 13253), (574, 13295), (622, 13565), (624, 13571), (633, 13607), (649, 13694), (668, 13772), (677, 13820), (688, 13877), (692, 13883), (708, 13931), (718, 13967), (723, 13991), (743, 14114), (757, 14186), (766, 14225), (801, 14432), (856, 14711), (865, 14789), (906, 15047), (915, 15095), (920, 15140), (934, 15218), (935, 15224), (938, 15236), (943, 15281), (944, 15284), (963, 15458), (990, 15617),

Gene: CanesSauce_16 Start: 9646, Stop: 14433, Start Num: 91

Candidate Starts for CanesSauce_16:

(Start: 91 @9646 has 16 MA's), (Start: 97 @9673 has 1 MA's), (117, 9751), (129, 9802), (149, 9889), (157, 9904), (169, 9961), (172, 9979), (175, 10006), (177, 10009), (190, 10078), (202, 10135), (212, 10180), (216, 10198), (227, 10243), (237, 10279), (244, 10312), (253, 10360), (255, 10363), (262, 10411), (269, 10450), (270, 10465), (310, 10657), (315, 10675), (331, 10759), (362, 10906), (370, 10933), (392, 11026), (394, 11032), (398, 11047), (404, 11086), (407, 11098), (419, 11164), (436, 11236), (440, 11254), (441, 11257), (446, 11284), (492, 11530), (506, 11596), (518, 11641), (522, 11662), (523, 11665), (524, 11668), (530, 11704), (540, 11743), (542, 11749), (549, 11776), (573, 11905), (574, 11908), (577, 11926), (598, 12049), (600, 12064), (618, 12193), (622, 12214), (632, 12256), (637, 12283), (639, 12289), (665, 12421), (668, 12433), (683, 12520), (694, 12562), (706, 12598), (735, 12724), (738, 12763), (764, 12892), (772, 12949), (777, 12991), (796, 13084), (802, 13159), (817, 13222), (833, 13303), (839, 13324), (860, 13501), (862, 13507), (887, 13726), (898, 13804), (900, 13822), (901, 13828), (909, 13888), (912, 13906), (918, 13939), (929, 14011), (937, 14050), (941, 14080), (948, 14146), (953, 14194), (961, 14254), (981, 14344), (989, 14404),

Gene: CaptainKirk2_17 Start: 10277, Stop: 15820, Start Num: 10

Candidate Starts for CaptainKirk2_17:

(Start: 10 @10277 has 26 MA's), (12, 10292), (Start: 13 @10298 has 1 MA's), (Start: 15 @10328 has 1 MA's), (16, 10337), (17, 10340), (18, 10382), (29, 10493), (31, 10514), (62, 10742), (66, 10760), (70, 10775), (72, 10781), (73, 10784), (77, 10802), (82, 10826), (100, 10910), (101, 10913), (111, 10952), (113, 10967), (115, 10976), (156, 11144), (161, 11171), (225, 11489), (266, 11693), (274, 11738), (275, 11744), (278, 11765), (281, 11777), (298, 11867), (308, 11912), (315, 11939), (320, 11969), (334, 12056), (335, 12059), (342, 12098), (371, 12218), (380, 12260), (392, 12305), (394, 12311), (398, 12326), (408, 12380), (414, 12419), (418, 12440), (419, 12443), (420, 12461), (422, 12470), (434, 12509), (436, 12515), (441, 12536), (446, 12563), (483, 12770), (500, 12836), (506, 12875), (510, 12890), (518, 12920), (519, 12923), (529, 12974), (548, 13055), (549, 13058), (569, 13091), (575, 13121), (580, 13145), (634, 13478), (642, 13526), (646, 13571), (647, 13574), (653, 13589), (663, 13634), (664, 13643), (666, 13652), (676, 13703), (689, 13775), (696, 13793), (703, 13814), (727, 13913), (728, 13916), (731, 13949), (740, 14015), (742, 14033), (745, 14048), (751, 14081), (762, 14132), (770, 14183), (776, 14231), (805, 14426), (806, 14429), (821, 14501), (822, 14504), (837, 14570), (838, 14573), (841, 14591), (849, 14651), (856, 14708), (857, 14726), (864, 14807), (865, 14810), (866, 14825), (883, 14984), (890, 15038), (900, 15104), (907, 15158), (909, 15170), (910, 15176), (929, 15299), (934, 15323), (938, 15341), (941, 15365), (942, 15371), (945, 15392), (948, 15431), (969, 15572), (973, 15584), (982, 15635), (986, 15653), (999, 15803),

Gene: CaramellLatte_16 Start: 9646, Stop: 14433, Start Num: 91

Candidate Starts for CaramellLatte_16:

(Start: 91 @9646 has 16 MA's), (Start: 97 @9673 has 1 MA's), (117, 9751), (129, 9802), (149, 9889), (157, 9904), (169, 9961), (172, 9979), (175, 10006), (177, 10009), (190, 10078), (202, 10135), (212, 10180), (216, 10198), (227, 10243), (237, 10279), (244, 10312), (253, 10360), (255, 10363), (262, 10411), (269, 10450), (270, 10465), (310, 10657), (315, 10675), (331, 10759), (362, 10906), (370, 10933), (392, 11026), (394, 11032), (398, 11047), (404, 11086), (407, 11098), (419, 11164), (436, 11236), (440, 11254), (441, 11257), (446, 11284), (492, 11530), (506, 11596), (518, 11641), (522, 11662), (523, 11665), (524, 11668), (530, 11704), (540, 11743), (542, 11749), (549, 11776), (573, 11905), (574, 11908), (577, 11926), (598, 12049), (600, 12064), (618, 12193), (622, 12214), (632, 12256), (637, 12283), (639, 12289), (665, 12421), (668, 12433), (683, 12520), (694, 12562), (706, 12598), (735, 12724), (738, 12763), (764, 12892), (772, 12949), (777, 12991), (796, 13084), (802, 13159), (817, 13222), (833, 13303), (839, 13324), (860, 13501), (862, 13507), (887, 13726), (898, 13804), (900, 13822), (901, 13828), (909, 13888), (912, 13906), (918, 13939), (929, 14011), (937, 14050), (941, 14080), (948, 14146), (953, 14194), (961, 14254), (981, 14344), (989, 14404),

Gene: Carsonalex_17 Start: 9687, Stop: 14825, Start Num: 22

Candidate Starts for Carsonalex_17:

(19, 9663), (Start: 22 @9687 has 37 MA's), (25, 9714), (36, 9843), (43, 9918), (78, 10071), (79, 10074), (99, 10170), (102, 10179), (108, 10209), (111, 10215), (113, 10230), (114, 10233), (119, 10254), (135, 10326), (138, 10347), (158, 10413), (161, 10434), (185, 10551), (216, 10713), (225, 10752), (243, 10827), (278, 11025), (300, 11133), (316, 11211), (320, 11229), (322, 11247), (334, 11316), (336, 11328), (343, 11361), (370, 11472), (371, 11478), (394, 11571), (398, 11586), (420, 11721), (429, 11754), (441, 11796), (455, 11904), (462, 11958), (483, 12030), (484, 12033), (506, 12135), (518, 12180), (520, 12189), (522, 12201), (523, 12204), (524, 12207), (540, 12282), (541, 12285), (542, 12288), (546, 12300), (547, 12309), (549, 12315), (556, 12357), (557, 12366), (569, 12414), (574, 12447), (597, 12582), (613, 12699), (618, 12732), (622, 12753), (637, 12822), (639, 12828), (666, 12963), (668, 12972), (683, 13056), (756, 13377), (792, 13596), (798, 13632), (839, 13845), (874, 14037), (881, 14085), (884, 14106), (900, 14214), (909, 14280), (912, 14298), (923, 14358), (929, 14403), (935, 14433), (937, 14442), (941, 14472), (948, 14538), (953, 14586), (961, 14646), (980, 14733), (989, 14796),

Gene: CheeseSpider_20 Start: 10667, Stop: 16162, Start Num: 15

Candidate Starts for CheeseSpider_20:

(Start: 10 @10616 has 26 MA's), (11, 10628), (12, 10631), (Start: 15 @10667 has 1 MA's), (16, 10676), (17, 10679), (18, 10721), (29, 10832), (31, 10853), (62, 11081), (66, 11099), (72, 11120), (73, 11123), (77, 11141), (82, 11165), (100, 11249), (102, 11255), (111, 11291), (113, 11306), (115, 11315), (156, 11483), (161, 11510), (185, 11627), (219, 11798), (225, 11828), (266, 12032), (274, 12077), (278, 12104), (281, 12116), (298, 12206), (308, 12251), (315, 12278), (320, 12308), (334, 12395), (342, 12437), (344, 12443), (371, 12557), (380, 12599), (392, 12644), (394, 12650), (398, 12665), (408, 12719), (414, 12758), (418, 12779), (419, 12782), (420, 12800), (428, 12827), (436, 12854), (441, 12875), (446, 12902), (500, 13175), (506, 13214), (510, 13229), (518, 13259), (519, 13262), (529, 13313), (549, 13397), (569, 13430), (575, 13460), (580, 13484), (587, 13550), (618, 13739), (634, 13817), (642, 13865), (644, 13898), (646, 13910), (647, 13913), (653, 13928), (655, 13937), (663, 13973), (664, 13982), (666, 13991), (676, 14042), (689, 14114), (696, 14132), (703, 14153), (727, 14252), (728, 14255), (731, 14288), (740, 14354), (742, 14372), (745, 14387), (751, 14420), (762, 14471), (770, 14522), (805, 14765), (806, 14768), (814, 14801), (821, 14840), (822, 14843), (837, 14909), (838, 14912), (849, 14990), (856, 15047), (857, 15065), (864, 15146), (866, 15164), (890, 15377), (900, 15443), (909, 15509), (910, 15515), (929, 15638), (934, 15662), (938, 15680), (941, 15704), (942, 15710), (945, 15731), (948, 15770), (969, 15911), (982, 15974), (991, 16052),

Gene: CherryonLim_17 Start: 10133, Stop: 15220, Start Num: 22

Candidate Starts for CherryonLim_17:

(Start: 22 @10133 has 37 MA's), (36, 10289), (54, 10418), (72, 10490), (78, 10517), (88, 10565), (90, 10574), (99, 10616), (101, 10622), (102, 10625), (111, 10661), (115, 10685), (121, 10712), (139, 10799), (148, 10838), (151, 10844), (158, 10859), (161, 10880), (172, 10934), (192, 11051), (205, 11114), (216, 11159), (236, 11240), (266, 11402), (268, 11411), (271, 11435), (274, 11447), (278, 11474), (281, 11486), (289, 11531), (295, 11561), (297, 11573), (319, 11675), (320, 11678), (334, 11765), (338, 11792), (360, 11882), (365, 11903), (371, 11927), (383, 11978), (394, 12020), (398, 12035), (400, 12044), (402, 12056), (408, 12089), (415, 12131), (426, 12191), (427, 12194), (428, 12197), (429, 12203), (435, 12221), (441, 12245), (450, 12308), (452, 12329), (454, 12350), (464, 12398), (475, 12428), (482, 12455), (483, 12458), (503, 12539), (504, 12551), (506, 12563), (510, 12578), (518, 12608), (522, 12629), (523, 12632), (533, 12692), (541, 12713), (547, 12737), (549, 12743), (562, 12827), (572, 12869), (579, 12899), (583, 12938), (591, 12986), (596, 13007), (597, 13010), (598, 13016), (607, 13082), (613, 13127), (618, 13160), (622, 13181), (634, 13235), (666, 13385), (668, 13394), (683, 13481), (731, 13658), (756, 13799), (761, 13829), (782, 13967), (798, 14048), (827, 14201), (833, 14231), (872, 14441), (874, 14450), (875, 14456), (881, 14492), (900, 14609), (901, 14615), (905, 14657), (909, 14675), (929, 14798), (934, 14822), (937, 14837), (941, 14867), (945, 14894), (946, 14900), (948, 14933), (955, 15002), (956, 15005), (961, 15041), (978, 15113), (981, 15131),

Gene: ChickenTender_18 Start: 9679, Stop: 14817, Start Num: 22

Candidate Starts for ChickenTender_18:

(Start: 22 @9679 has 37 MA's), (25, 9706), (36, 9835), (43, 9910), (78, 10063), (79, 10066), (99, 10162), (102, 10171), (108, 10201), (111, 10207), (113, 10222), (114, 10225), (119, 10246), (135, 10318), (138, 10339), (158, 10405), (161, 10426), (185, 10543), (216, 10705), (225, 10744), (271, 10978), (274, 10990), (278, 11017), (308, 11164), (316, 11203), (327, 11257), (329, 11269), (334, 11308), (340, 11341), (364, 11443), (365, 11446), (371, 11470), (383, 11521), (394, 11563), (398, 11578), (404, 11617), (420, 11713), (432, 11755), (441, 11788), (455, 11896), (462, 11950), (484, 12025), (506, 12127), (518, 12172), (523, 12196), (524, 12199), (533, 12256), (540, 12274), (549, 12307), (554, 12328), (557, 12358), (569, 12406), (570, 12412), (574, 12439), (597, 12574), (613, 12691), (618, 12724), (622, 12745), (637, 12814), (639, 12820), (668, 12964), (683, 13048), (756, 13369), (792, 13588), (796, 13603), (798, 13624), (836, 13825), (839, 13837), (881, 14077), (884, 14098), (900, 14206), (909, 14272), (912, 14290), (929, 14395), (934, 14419), (935, 14425), (937, 14434), (941, 14464), (948, 14530), (953, 14578), (961, 14638), (980, 14725), (989, 14788),

Gene: ChocoMunchkin_16 Start: 9646, Stop: 14433, Start Num: 91

Candidate Starts for ChocoMunchkin_16:

(Start: 91 @9646 has 16 MA's), (Start: 97 @9673 has 1 MA's), (117, 9751), (129, 9802), (149, 9889), (157, 9904), (169, 9961), (172, 9979), (175, 10006), (177, 10009), (190, 10078), (202, 10135), (212, 10180), (216, 10198), (227, 10243), (237, 10279), (244, 10312), (253, 10360), (255, 10363), (262, 10411), (269, 10450), (270, 10465), (310, 10657), (315, 10675), (331, 10759), (362, 10906), (370, 10933), (392, 11026), (394, 11032), (398, 11047), (404, 11086), (407, 11098), (419, 11164), (436, 11236), (440, 11254), (441, 11257), (446, 11284), (492, 11530), (506, 11596), (518, 11641), (522, 11662), (523, 11665), (524, 11668), (530, 11704), (540, 11743), (542, 11749), (549, 11776), (573, 11905), (574, 11908), (577, 11926), (598, 12049), (600, 12064), (618, 12193), (622, 12214), (632, 12256), (637, 12283), (639, 12289), (665, 12421), (668, 12433), (683, 12520), (694, 12562), (706, 12598), (735, 12724), (738, 12763), (764, 12892), (772, 12949), (777, 12991), (796, 13084), (802, 13159), (817, 13222), (833, 13303), (839, 13324), (860, 13501), (862, 13507), (887, 13726), (898, 13804), (900, 13822), (901, 13828), (909, 13888), (912, 13906), (918, 13939), (929, 14011), (937, 14050), (941, 14080), (948, 14146), (953, 14194), (961, 14254), (981, 14344), (989, 14404),

Gene: Cleo_16 Start: 9909, Stop: 15023, Start Num: 22

Candidate Starts for Cleo_16:

(19, 9888), (Start: 22 @9909 has 37 MA's), (25, 9936), (36, 10065), (45, 10149), (48, 10161), (58, 10212), (67, 10245), (74, 10269), (80, 10302), (99, 10392), (113, 10452), (114, 10455), (128, 10521), (137, 10557), (138, 10569), (154, 10626), (158, 10635), (161, 10656), (230, 10995), (244, 11052), (263, 11154), (274, 11220), (275, 11226), (278, 11247), (308, 11394), (320, 11451), (322, 11469), (325, 11484), (329, 11499), (334, 11538), (357, 11643), (362, 11667), (364, 11673), (391, 11784), (394, 11793), (398, 11808), (404, 11847), (420, 11943), (428, 11970), (429, 11976), (431, 11982), (440, 12015), (441, 12018), (455, 12126), (460, 12165), (466, 12198), (476, 12228), (477, 12231), (483, 12252), (484, 12255), (506, 12357), (518, 12402), (523, 12426), (524, 12429), (547, 12531), (548, 12534), (549, 12537), (557, 12588), (569, 12636), (570, 12642), (577, 12687), (597, 12804), (598, 12810), (606, 12867), (613, 12921), (617, 12942), (618, 12954), (622, 12975), (623, 12978), (637, 13044), (639, 13050), (666, 13185), (678, 13251), (683, 13278), (706, 13356), (756, 13596), (761, 13626), (787, 13800), (796, 13830), (798, 13851), (816, 13959), (823, 13995), (833, 14043), (881, 14280), (898, 14391), (900, 14409), (909, 14475), (918, 14526), (929, 14598), (935, 14628), (937, 14637), (938, 14640), (941, 14667), (945, 14694), (948, 14733), (953, 14781), (961, 14841), (970, 14877), (980, 14931),

Gene: CocoaPuff_15 Start: 9378, Stop: 14465, Start Num: 22

Candidate Starts for CocoaPuff_15:

(Start: 22 @9378 has 37 MA's), (36, 9534), (54, 9663), (61, 9693), (78, 9762), (81, 9774), (88, 9810), (90, 9819), (99, 9861), (102, 9870), (111, 9906), (115, 9930), (128, 9990), (139, 10044), (148, 10083), (151, 10089), (158, 10104), (161, 10125), (190, 10284), (192, 10296), (205, 10359), (216, 10404), (236, 10485), (266, 10644), (271, 10677), (274, 10689), (278, 10716), (289, 10773), (295, 10803), (297, 10815), (319, 10917), (320, 10920), (334, 11007), (344, 11055), (371, 11169), (394, 11262), (398, 11277), (402, 11298), (408, 11331), (412, 11361), (415, 11373), (420, 11412), (427, 11436), (428, 11439), (435, 11463), (441, 11487), (454, 11592), (464, 11640), (475, 11670), (479, 11685), (483, 11700), (492, 11739), (503, 11781), (506, 11805), (510, 11820), (515, 11835), (518, 11850), (523, 11874), (530, 11913), (532, 11928), (533, 11934), (541, 11955), (547, 11979), (549, 11985), (572, 12111), (579, 12141), (583, 12180), (591, 12228), (596, 12249), (597, 12252), (607, 12324), (613, 12369), (618, 12402), (622, 12423), (634, 12477), (645, 12552), (668, 12636), (683, 12723), (756, 13041), (761, 13071), (782, 13209), (793, 13260), (798, 13290), (827, 13449), (833, 13479), (867, 13659), (875, 13710), (881, 13737), (884, 13758), (900, 13854), (905, 13902), (909, 13920), (929, 14043), (934, 14067), (937, 14082), (941, 14112), (945, 14139), (946, 14145), (948, 14178), (955, 14247), (956, 14250), (961, 14286), (981, 14376),

Gene: Colossa_18 Start: 10917, Stop: 15554, Start Num: 40

Candidate Starts for Colossa_18:

(Start: 40 @10917 has 14 MA's), (47, 10950), (59, 11001), (75, 11061), (76, 11067), (92, 11130), (93, 11136), (96, 11145), (125, 11247), (136, 11283), (145, 11331), (162, 11388), (231, 11712), (234, 11730), (246, 11775), (293, 12039), (303, 12081), (312, 12123), (377, 12426), (382, 12447), (409, 12558), (414, 12591), (524, 13089), (552, 13182), (598, 13347), (603, 13383), (619, 13491), (622, 13509), (638, 13578), (643, 13614), (649, 13650), (659, 13677), (668, 13725), (708, 13899), (714, 13920), (718, 13935), (723, 13959), (724, 13962), (747, 14109), (758, 14169), (808, 14469), (812, 14487), (869, 14805), (912, 15069), (925, 15153), (934, 15198), (940, 15225), (951, 15336), (957, 15387), (958, 15402), (961, 15423), (977, 15492), (985, 15531), (986, 15534),

Gene: Cozz_16 Start: 9630, Stop: 14768, Start Num: 22

Candidate Starts for Cozz_16:

(19, 9606), (Start: 22 @9630 has 37 MA's), (25, 9657), (36, 9786), (43, 9861), (78, 10014), (79, 10017), (99, 10113), (102, 10122), (108, 10152), (111, 10158), (113, 10173), (114, 10176), (119, 10197), (135, 10269), (138, 10290), (158, 10356), (161, 10377), (185, 10494), (216, 10656), (225, 10695), (243, 10770), (271, 10929), (274, 10941), (278, 10968), (285, 11013), (289, 11025), (308, 11115), (313, 11133), (316, 11154), (321, 11184), (327, 11208), (329, 11220), (334, 11259), (340, 11292), (364, 11394), (365, 11397), (371, 11421), (394, 11514), (398, 11529), (404, 11568), (420, 11664), (431, 11703), (432, 11706), (441, 11739), (455, 11847), (456, 11850), (462, 11901), (484, 11976), (506, 12078), (518, 12123), (522, 12144), (523, 12147), (524, 12150), (540, 12225), (549, 12258), (554, 12279), (569, 12357), (570, 12363), (574, 12390), (597, 12525), (613, 12642), (618, 12675), (622, 12696), (637, 12765), (639, 12771), (641, 12786), (666, 12906), (668, 12915), (683, 12999), (756, 13320), (792, 13539), (798, 13575), (839, 13788), (874, 13980), (881, 14028), (884, 14049), (900, 14157), (909, 14223), (912, 14241), (923, 14301), (929, 14346), (935, 14376), (937, 14385), (941, 14415), (948, 14481), (953, 14529), (961, 14589), (980, 14676), (989, 14739),

Gene: DearBasketball_19 Start: 10112, Stop: 14347, Start Num: 40

Candidate Starts for DearBasketball_19:

(34, 10043), (37, 10073), (Start: 40 @10112 has 14 MA's), (44, 10139), (48, 10157), (55, 10190), (56, 10202), (104, 10409), (123, 10502), (146, 10601), (164, 10664), (165, 10673), (190, 10799), (213, 10904), (220, 10931), (239, 10997), (243, 11018), (247, 11030), (254, 11054), (283, 11201), (293, 11255), (306, 11300), (335, 11450), (337, 11471), (361, 11570), (389, 11675), (390, 11678), (416, 11774), (433, 11855), (435, 11861), (466, 11942), (467, 11951), (495, 12044), (503, 12077), (516, 12137), (517, 12140), (553, 12230), (587, 12254), (597, 12290), (598, 12296), (600, 12311), (606, 12353), (612, 12404), (618, 12440), (630, 12491), (645, 12590), (673, 12692), (675, 12701), (685, 12752), (688, 12776), (698, 12803), (705, 12821), (707, 12830), (720, 12869), (731, 12938), (756, 13079), (782, 13247), (784, 13271), (788, 13295), (794, 13313), (831, 13502), (832, 13505), (836, 13523), (910, 13793), (927, 13901), (929, 13913), (941, 13979), (945, 14006), (948, 14045), (965, 14174),

Gene: Delian_17 Start: 10277, Stop: 15820, Start Num: 10

Candidate Starts for Delian_17:

(Start: 10 @10277 has 26 MA's), (12, 10292), (Start: 13 @10298 has 1 MA's), (Start: 15 @10328 has 1 MA's), (16, 10337), (17, 10340), (18, 10382), (29, 10493), (31, 10514), (62, 10742), (66, 10760), (70, 10775), (72, 10781), (73, 10784), (77, 10802), (82, 10826), (100, 10910), (101, 10913), (111, 10952), (113, 10967), (115, 10976), (156, 11144), (161, 11171), (225, 11489), (266, 11693), (274, 11738), (275, 11744), (278, 11765), (281, 11777), (298, 11867), (308, 11912), (315, 11939), (320, 11969), (334, 12056), (335, 12059), (342, 12098), (371, 12218), (380, 12260), (392, 12305), (394, 12311), (398, 12326), (408, 12380), (414, 12419), (418, 12440), (419, 12443), (420, 12461), (422, 12470), (434, 12509), (436, 12515), (441, 12536), (446, 12563), (483, 12770), (500, 12836), (506, 12875), (510, 12890), (518, 12920), (519, 12923), (529, 12974), (548, 13055), (549, 13058), (569, 13091), (575, 13121), (580, 13145), (634, 13478), (642, 13526), (646, 13571), (647, 13574), (653, 13589), (663, 13634), (664, 13643), (666, 13652), (676, 13703), (689, 13775), (696, 13793), (703, 13814), (727, 13913), (728, 13916), (731, 13949), (740, 14015), (742, 14033), (745, 14048), (751, 14081),

(762, 14132), (770, 14183), (776, 14231), (805, 14426), (806, 14429), (821, 14501), (822, 14504), (837, 14570), (838, 14573), (841, 14591), (849, 14651), (856, 14708), (857, 14726), (864, 14807), (865, 14810), (866, 14825), (883, 14984), (890, 15038), (900, 15104), (907, 15158), (909, 15170), (910, 15176), (929, 15299), (934, 15323), (938, 15341), (941, 15365), (942, 15371), (945, 15392), (948, 15431), (969, 15572), (973, 15584), (982, 15635), (986, 15653), (999, 15803),

Gene: DinoNuggs_17 Start: 10078, Stop: 14313, Start Num: 40

Candidate Starts for DinoNuggs_17:

(34, 10009), (37, 10039), (Start: 40 @10078 has 14 MA's), (44, 10105), (48, 10123), (55, 10156), (56, 10168), (104, 10375), (123, 10468), (146, 10567), (164, 10630), (165, 10639), (202, 10825), (217, 10885), (220, 10897), (223, 10906), (239, 10963), (243, 10984), (247, 10996), (283, 11167), (293, 11221), (335, 11416), (341, 11446), (356, 11506), (363, 11542), (390, 11644), (416, 11740), (427, 11800), (433, 11821), (435, 11827), (466, 11908), (467, 11917), (494, 12007), (495, 12010), (503, 12043), (516, 12103), (517, 12106), (553, 12196), (587, 12220), (597, 12256), (598, 12262), (600, 12277), (606, 12319), (612, 12370), (618, 12406), (630, 12457), (645, 12556), (673, 12658), (675, 12667), (685, 12718), (688, 12742), (698, 12769), (705, 12787), (707, 12796), (720, 12835), (731, 12904), (756, 13045), (782, 13213), (784, 13237), (788, 13261), (794, 13279), (831, 13468), (832, 13471), (836, 13489), (910, 13759), (929, 13879), (941, 13945), (948, 14011), (965, 14140),

Gene: DirtyBoi_18 Start: 11005, Stop: 16017, Start Num: 20

Candidate Starts for DirtyBoi_18:

(Start: 20 @11005 has 13 MA's), (24, 11035), (26, 11056), (30, 11092), (53, 11296), (60, 11326), (79, 11401), (102, 11506), (115, 11566), (132, 11644), (133, 11647), (148, 11719), (161, 11761), (178, 11848), (266, 12277), (271, 12310), (275, 12328), (282, 12373), (286, 12397), (296, 12442), (298, 12451), (307, 12487), (308, 12496), (314, 12520), (316, 12535), (320, 12553), (334, 12640), (347, 12694), (351, 12712), (368, 12787), (375, 12817), (392, 12889), (394, 12895), (398, 12910), (408, 12964), (419, 13027), (420, 13045), (428, 13072), (431, 13084), (436, 13099), (441, 13120), (457, 13240), (460, 13267), (466, 13300), (479, 13339), (483, 13354), (494, 13402), (501, 13426), (505, 13456), (521, 13519), (530, 13564), (531, 13567), (549, 13636), (560, 13708), (568, 13729), (569, 13735), (570, 13741), (573, 13765), (574, 13768), (578, 13789), (581, 13819), (583, 13831), (588, 13867), (600, 13921), (601, 13924), (602, 13930), (608, 13975), (609, 13984), (634, 14125), (640, 14158), (645, 14203), (647, 14209), (653, 14221), (666, 14272), (686, 14356), (693, 14380), (701, 14404), (702, 14407), (718, 14458), (728, 14506), (739, 14593), (744, 14617), (746, 14629), (749, 14650), (755, 14677), (774, 14782), (779, 14815), (789, 14863), (793, 14875), (807, 14947), (811, 14956), (853, 15112), (861, 15142), (891, 15334), (909, 15454), (911, 15457), (932, 15601), (944, 15664), (964, 15826), (968, 15838), (981, 15895), (992, 15970), (993, 15976), (996, 16006), (997, 16009),

Gene: DonkeyMan_16 Start: 9948, Stop: 14102, Start Num: 40

Candidate Starts for DonkeyMan_16:

(Start: 40 @9948 has 14 MA's), (44, 9975), (45, 9981), (48, 9993), (57, 10035), (71, 10083), (147, 10419), (197, 10641), (236, 10773), (241, 10794), (246, 10812), (273, 10941), (274, 10944), (305, 11073), (344, 11253), (352, 11283), (357, 11307), (390, 11436), (404, 11472), (409, 11493), (416, 11532), (427, 11592), (433, 11613), (435, 11619), (466, 11700), (467, 11709), (495, 11802), (503, 11835), (517, 11898), (553, 11988), (587, 12012), (597, 12048), (598, 12054), (600, 12069), (606, 12111), (612, 12162), (618, 12198), (630, 12249), (645, 12348), (673, 12450), (675, 12459), (685, 12510), (688, 12534), (698, 12561), (705, 12579), (707, 12588), (720, 12627), (731, 12696), (756, 12837), (782, 13005), (784, 13029), (788, 13053), (794, 13071), (831, 13254), (832, 13257), (836, 13275), (910, 13548), (929, 13668), (941, 13734), (945, 13761), (948, 13800), (965, 13929),

Gene: Dre3_16 Start: 9856, Stop: 14970, Start Num: 22

Candidate Starts for Dre3_16:

(19, 9835), (Start: 22 @9856 has 37 MA's), (25, 9883), (36, 10012), (45, 10096), (48, 10108), (58, 10159), (67, 10192), (74, 10216), (80, 10249), (99, 10339), (113, 10399), (114, 10402), (128, 10468), (137, 10504), (138, 10516), (154, 10573), (158, 10582), (161, 10603), (230, 10942), (244, 10999), (263, 11101), (274, 11167), (275, 11173), (278, 11194), (308, 11341), (320, 11398), (322, 11416), (325, 11431), (329, 11446), (334, 11485), (357, 11590), (362, 11614), (364, 11620), (391, 11731), (394, 11740), (398, 11755), (404, 11794), (420, 11890), (428, 11917), (429, 11923), (431, 11929), (440, 11962), (441, 11965), (455, 12073), (460, 12112), (466, 12145), (476, 12175), (477, 12178), (483, 12199), (484, 12202), (506, 12304), (518, 12349), (523, 12373), (524, 12376), (541, 12454), (547, 12478), (548, 12481), (549, 12484), (557, 12535), (569, 12583), (570, 12589), (577, 12634), (597, 12751), (598, 12757), (606, 12814), (613, 12868), (617, 12889), (618, 12901), (622, 12922), (623, 12925), (637, 12991), (639, 12997), (666, 13132), (678, 13198), (683, 13225), (706, 13303), (756, 13543), (761, 13573), (787, 13747), (796, 13777), (798, 13798), (816, 13906), (833, 13990), (881, 14227), (898, 14338), (900, 14356), (909, 14422), (918, 14473), (929, 14545), (937, 14584), (938, 14587), (941, 14614), (945, 14641), (948, 14680), (953, 14728), (961, 14788), (970, 14824), (980, 14878),

Gene: ElJefes_15 Start: 10009, Stop: 14943, Start Num: 36

Candidate Starts for ElJefes_15:

(Start: 22 @9853 has 37 MA's), (36, 10009), (50, 10114), (54, 10138), (66, 10189), (78, 10237), (88, 10285), (90, 10294), (99, 10336), (101, 10342), (102, 10345), (111, 10381), (115, 10405), (121, 10432), (139, 10519), (148, 10558), (151, 10564), (158, 10579), (161, 10600), (172, 10654), (192, 10771), (205, 10834), (216, 10879), (225, 10918), (236, 10960), (266, 11122), (268, 11131), (271, 11155), (274, 11167), (278, 11194), (281, 11206), (289, 11251), (295, 11281), (297, 11293), (319, 11395), (320, 11398), (334, 11485), (338, 11512), (354, 11572), (360, 11602), (365, 11623), (371, 11647), (383, 11698), (394, 11740), (398, 11755), (400, 11764), (402, 11776), (408, 11809), (415, 11851), (426, 11911), (427, 11914), (428, 11917), (435, 11941), (441, 11965), (454, 12070), (464, 12118), (483, 12178), (484, 12181), (492, 12217), (506, 12283), (510, 12298), (515, 12313), (518, 12328), (522, 12349), (523, 12352), (530, 12391), (532, 12406), (533, 12412), (541, 12433), (547, 12457), (549, 12463), (572, 12589), (579, 12619), (583, 12658), (591, 12706), (596, 12727), (597, 12730), (598, 12736), (607, 12802), (613, 12847), (618, 12880), (622, 12901), (634, 12955), (666, 13105), (668, 13114), (683, 13201), (731, 13378), (756, 13519), (761, 13549), (782, 13687), (798, 13768), (827, 13921), (833, 13951), (872, 14173), (874, 14182), (875, 14188), (881, 14215), (900, 14332), (901, 14338), (905, 14380), (909, 14398), (929, 14521), (934, 14545), (937, 14560), (941, 14590), (945, 14617), (946, 14623), (948, 14656), (955, 14725), (956, 14728), (961, 14764), (978, 14836), (981, 14854),

Gene: Elinal_17 Start: 9384, Stop: 14468, Start Num: 22

Candidate Starts for Elinal_17:

(Start: 22 @9384 has 37 MA's), (36, 9540), (54, 9669), (61, 9699), (78, 9768), (81, 9780), (90, 9825), (99, 9867), (102, 9876), (111, 9912), (115, 9936), (139, 10050), (148, 10089), (151, 10095), (154, 10101), (158, 10110), (161, 10131), (192, 10302), (205, 10365), (216, 10410), (236, 10491), (266, 10650), (271, 10683), (274, 10695), (278, 10722), (289, 10779), (295, 10809), (297, 10821), (319, 10923), (320, 10926), (334, 11013), (344, 11061), (371, 11175), (394, 11268), (398, 11283), (402, 11304), (408, 11337), (412, 11367), (415, 11379), (420, 11418), (427, 11442), (428, 11445), (435, 11469), (441, 11493), (454, 11598), (464, 11646), (475, 11676), (479, 11691), (483, 11706), (492, 11745), (503, 11787), (504, 11799), (506, 11811), (510, 11826), (515, 11841), (518, 11856), (523, 11880), (530, 11919), (532, 11934), (533, 11940), (541, 11961), (547, 11985), (549, 11991), (572, 12117), (579, 12147), (584, 12198), (591, 12234), (596, 12255), (597, 12258), (607, 12330), (613, 12375), (618, 12408), (622, 12429), (634, 12483), (645, 12558), (668, 12642), (683, 12729), (733, 12915), (756, 13047), (761, 13077), (782, 13215), (793, 13266), (798, 13296), (827, 13452), (833, 13482), (867, 13662), (875, 13713), (881, 13740), (884, 13761), (900, 13857), (905, 13905), (909, 13923), (929, 14046), (934, 14070), (937, 14085), (941, 14115), (945, 14142), (946, 14148), (948, 14181), (955, 14250), (956, 14253), (961, 14289), (981, 14379),

Gene: Elliott_16 Start: 9629, Stop: 14767, Start Num: 22

Candidate Starts for Elliott_16:

(19, 9605), (Start: 22 @9629 has 37 MA's), (25, 9656), (36, 9785), (43, 9860), (78, 10013), (79, 10016), (99, 10112), (102, 10121), (108, 10151), (111, 10157), (113, 10172), (114, 10175), (119, 10196), (135, 10268), (138, 10289), (158, 10355), (161, 10376), (185, 10493), (216, 10655), (225, 10694), (243, 10769), (271, 10928), (274, 10940), (278, 10967), (285, 11012), (289, 11024), (308, 11114), (313, 11132), (316, 11153), (321, 11183), (327, 11207), (329, 11219), (334, 11258), (340, 11291), (364, 11393), (365, 11396), (371, 11420), (394, 11513), (398, 11528), (404, 11567), (431, 11702), (432, 11705), (441, 11738), (455, 11846), (456, 11849), (462, 11900), (484, 11975), (506, 12077), (518, 12122), (522, 12143), (523, 12146), (524, 12149), (540, 12224), (549, 12257), (554, 12278), (557, 12308), (569, 12356), (570, 12362), (574, 12389), (597, 12524), (613, 12641), (618, 12674), (622, 12695), (637, 12764), (639, 12770), (641, 12785), (666, 12905), (668, 12914), (683, 12998), (756, 13319), (792, 13538), (798, 13574), (839, 13787), (874, 13979), (881, 14027), (884, 14048), (900, 14156), (909, 14222), (912, 14240), (929, 14345), (935, 14375), (937, 14384), (941, 14414), (948, 14480), (953, 14528), (961, 14588), (980, 14675), (989, 14738),

Gene: Emalyn_15 Start: 9356, Stop: 14068, Start Num: 91

Candidate Starts for Emalyn_15:

(Start: 91 @9356 has 16 MA's), (129, 9512), (149, 9599), (157, 9614), (165, 9659), (169, 9671), (172, 9689), (175, 9716), (190, 9788), (198, 9830), (202, 9845), (203, 9848), (206, 9872), (212, 9890), (216, 9908), (221, 9929), (227, 9953), (229, 9962), (237, 9989), (244, 10022), (247, 10031), (262, 10121), (269, 10160), (270, 10175), (283, 10244), (288, 10271), (310, 10367), (315, 10385), (325, 10448), (362, 10616), (364, 10622), (392, 10736), (394, 10742), (398, 10757), (436, 10946), (441, 10967), (445, 10985), (446, 10994), (462, 11129), (484, 11204), (492, 11240), (502, 11279), (503, 11282), (506, 11306), (515, 11336), (518, 11351), (523, 11375), (530, 11414), (540, 11453), (542, 11459), (574, 11618), (612, 11867), (613, 11870), (618, 11903), (622, 11924), (637, 11993), (639, 11999), (683, 12230), (722, 12365), (756, 12557), (768, 12626), (771, 12650), (796, 12791), (833, 13004), (839, 13025), (846, 13079), (888, 13382), (898, 13439), (900, 13457), (909, 13523), (921, 13595), (929, 13646), (934, 13670), (935, 13676), (937, 13685), (941, 13715), (948, 13781), (953, 13829), (961, 13889), (981, 13979), (989, 14039),

Gene: Eyes_17 Start: 10596, Stop: 15716, Start Num: 20

Candidate Starts for Eyes_17:

(Start: 20 @10596 has 13 MA's), (Start: 22 @10605 has 37 MA's), (46, 10848), (51, 10878), (53, 10887), (60, 10917), (70, 10956), (77, 10983), (112, 11139), (115, 11157), (148, 11310), (161, 11352), (172, 11406), (216, 11631), (217, 11634), (225, 11670), (244, 11748), (251, 11787), (266, 11871), (271, 11904), (273, 11913), (275, 11922), (281, 11955), (282, 11967), (286, 11991), (296, 12036), (298, 12045), (307, 12081), (315, 12117), (316, 12129), (320, 12147), (327, 12183), (328, 12192), (351, 12306), (359, 12348), (392, 12483), (393, 12486), (394, 12489), (398, 12504), (408, 12558), (414, 12597), (431, 12678), (436, 12693), (441, 12714), (450, 12777), (453, 12813), (494, 12975), (526, 13032), (536, 13044), (537, 13047), (549, 13080), (553, 13098), (568, 13173), (569, 13179), (570, 13185), (572, 13206), (573, 13209), (574, 13212), (583, 13275), (588, 13311), (592, 13326), (598, 13350), (600, 13365), (601, 13368), (602, 13374), (609, 13428), (626, 13527), (634, 13569), (645, 13647), (666, 13716), (669, 13734), (690, 13842), (693, 13845), (701, 13869), (702, 13872), (709, 13893), (717, 13914), (718, 13923), (739, 14058), (744, 14082), (755, 14142), (767, 14202), (774, 14247), (779, 14280), (789, 14328), (793, 14340), (800, 14400), (830, 14550), (834, 14568), (846, 14646), (847, 14652), (850, 14661), (852, 14688), (859, 14781), (865, 14820), (870, 14862), (889, 15015), (896, 15048), (897, 15051), (902, 15108), (903, 15117), (904, 15129), (909, 15150), (913, 15171), (944, 15363), (948, 15402), (956, 15471), (964, 15525), (993, 15678),

Gene: Fairfaxidum_17 Start: 10343, Stop: 15964, Start Num: 10

Candidate Starts for Fairfaxidum_17:

(Start: 9 @10307 has 1 MA's), (Start: 10 @10343 has 26 MA's), (Start: 13 @10364 has 1 MA's), (14, 10382), (17, 10406), (18, 10448), (28, 10547), (29, 10559), (31, 10580), (35, 10637), (41, 10709), (45, 10730), (50, 10751), (53, 10772), (54, 10775), (65, 10823), (66, 10826), (73, 10850), (77, 10868), (88, 10922), (102, 10982), (111, 11018), (112, 11024), (161, 11237), (194, 11423), (219, 11525), (222, 11540), (225, 11555), (240, 11612), (274, 11804), (296, 11924), (315, 12005), (320, 12035), (327, 12071), (334, 12122), (342, 12164), (371, 12284), (383, 12335), (392, 12371), (394, 12377), (398, 12392), (408, 12446), (414, 12485), (419, 12509), (420, 12527), (429, 12560), (434, 12575), (436, 12581), (440, 12599), (441, 12602), (446, 12629), (450, 12665), (503, 12896), (509, 12932), (510, 12935), (519, 12968), (541, 13070), (549, 13103), (559, 13166), (563, 13202), (567, 13238), (569, 13262), (572, 13289), (585, 13370), (598, 13436), (601, 13454), (616, 13559), (621, 13592), (634, 13658), (635, 13667), (642, 13706), (644, 13739), (646, 13751), (647, 13754), (653, 13769), (655, 13778), (663, 13814), (664, 13823), (666, 13832), (684, 13928), (701, 13988), (702, 13991), (703, 13994), (710, 14015), (728, 14096), (734, 14138), (745, 14225), (751, 14258), (753, 14267), (762, 14309), (780, 14423), (805, 14597), (821, 14672), (822, 14675), (828, 14705), (829, 14708), (835, 14732), (837, 14741), (838, 14744), (849, 14822), (856, 14879), (866, 14996), (873, 15047), (890, 15185), (900, 15251), (909, 15317), (910, 15323), (912, 15341), (927, 15434), (929, 15446), (939, 15494), (941, 15512), (942, 15518), (945, 15539), (948, 15578), (969, 15719), (982, 15782), (991, 15857), (999, 15950),

Gene: Feastonyeet_15 Start: 9403, Stop: 14511, Start Num: 22

Candidate Starts for Feastonyeet_15:

(Start: 22 @9403 has 37 MA's), (36, 9559), (54, 9688), (61, 9718), (78, 9787), (81, 9799), (88, 9835), (99, 9886), (102, 9895), (111, 9931), (115, 9955), (128, 10015), (139, 10069), (148, 10108), (151, 10114), (158, 10129), (161, 10150), (192, 10321), (205, 10384), (216, 10429), (236, 10510), (266, 10669), (271, 10702), (274, 10714), (278, 10741), (289, 10798), (295, 10828), (297, 10840), (319, 10942), (320, 10945), (334, 11032), (344, 11080), (371, 11194), (394, 11287), (398, 11302), (402, 11323), (408, 11356), (412, 11386), (415, 11398), (420, 11437), (427, 11461), (428, 11464), (435, 11488), (441, 11512), (454, 11617), (475, 11695), (483, 11725), (484, 11728), (492, 11764), (503, 11806), (506, 11830), (510, 11845), (515, 11860), (518, 11875), (523, 11899), (530, 11938), (532, 11953), (533, 11959), (547, 12004), (549, 12010), (572, 12136), (579, 12166), (582, 12202), (583, 12205), (591, 12253), (596, 12274), (597, 12277), (607, 12349), (613, 12394), (618, 12427), (622, 12448), (634, 12502), (645, 12577), (668, 12661), (683, 12748), (756, 13066), (761, 13096), (782, 13234), (793, 13285), (798, 13315), (827, 13480), (833, 13510), (867, 13690), (875, 13741), (881, 13783), (884, 13804), (900, 13900), (905, 13948), (909, 13966), (929, 14089), (934, 14113), (937, 14128), (941, 14158), (945, 14185), (946, 14191), (948, 14224), (955, 14293), (956, 14296), (961, 14332), (981, 14422),

Gene: Fribs8_17 Start: 10424, Stop: 15559, Start Num: 22

Candidate Starts for Fribs8_17:

(Start: 22 @10424 has 37 MA's), (25, 10451), (36, 10580), (48, 10676), (58, 10727), (67, 10760), (74, 10784), (80, 10817), (99, 10907), (113, 10967), (114, 10970), (126, 11030), (128, 11036), (138, 11084), (158, 11150), (161, 11171), (169, 11207), (244, 11567), (263, 11669), (271, 11723), (272, 11726), (274, 11735), (275, 11741), (278, 11762), (308, 11909), (320, 11966), (322, 11984), (327, 12002), (329, 12014), (334, 12053), (344, 12101), (357, 12158), (362, 12182), (364, 12188), (391, 12299), (394, 12308), (398, 12323), (404, 12362), (418, 12437), (428, 12485), (429, 12491), (441, 12533), (455, 12641), (460, 12680), (466, 12713), (506, 12872), (518, 12917), (523, 12941), (541, 13022), (547, 13046), (548, 13049), (549, 13052), (553, 13070), (557, 13103), (568, 13145), (574, 13184), (581, 13235), (597, 13319), (598, 13325), (606, 13382), (608, 13394), (613, 13436), (617, 13457), (618, 13469), (622, 13490), (623, 13493), (637, 13559), (641, 13580), (666, 13700), (678, 13766), (683, 13793), (695, 13838), (703, 13859), (710, 13880), (756, 14123), (761, 14153), (768, 14192), (787, 14327), (796, 14357), (798, 14378), (833, 14570), (874, 14783), (878, 14801), (881, 14816), (898, 14927), (900, 14945), (909, 15011), (918, 15062), (927, 15122), (929, 15134), (937, 15173), (938, 15176), (941, 15203), (946, 15236), (948, 15269), (980, 15467), (982, 15473), (989,

15530),

Gene: GEazy_17 Start: 10605, Stop: 15728, Start Num: 20

Candidate Starts for GEazy_17:

(Start: 20 @10605 has 13 MA's), (Start: 22 @10614 has 37 MA's), (51, 10887), (53, 10896), (60, 10926), (90, 11055), (115, 11166), (127, 11223), (161, 11361), (172, 11415), (178, 11448), (219, 11649), (225, 11679), (244, 11757), (248, 11775), (251, 11796), (266, 11880), (271, 11913), (273, 11922), (275, 11931), (281, 11964), (282, 11976), (286, 12000), (296, 12045), (298, 12054), (307, 12090), (308, 12099), (315, 12126), (316, 12138), (320, 12156), (327, 12192), (351, 12315), (359, 12357), (392, 12492), (393, 12495), (394, 12498), (398, 12513), (408, 12567), (414, 12606), (431, 12687), (436, 12702), (441, 12723), (444, 12738), (446, 12750), (450, 12786), (453, 12822), (494, 12984), (526, 13041), (536, 13053), (537, 13056), (549, 13089), (553, 13107), (568, 13182), (569, 13188), (570, 13194), (572, 13215), (573, 13218), (574, 13221), (583, 13284), (588, 13320), (592, 13335), (598, 13359), (600, 13374), (601, 13377), (609, 13437), (626, 13536), (634, 13578), (645, 13656), (666, 13725), (669, 13743), (690, 13851), (701, 13878), (702, 13881), (716, 13920), (717, 13923), (718, 13932), (728, 13980), (739, 14067), (744, 14091), (755, 14151), (767, 14211), (779, 14289), (789, 14337), (793, 14349), (800, 14409), (805, 14451), (824, 14532), (830, 14559), (834, 14577), (840, 14607), (846, 14655), (847, 14661), (850, 14670), (855, 14718), (859, 14790), (865, 14829), (870, 14871), (896, 15057), (897, 15060), (902, 15117), (903, 15126), (904, 15138), (909, 15159), (944, 15372), (948, 15411), (956, 15480), (964, 15534), (981, 15606), (993, 15687), (995, 15711),

Gene: GMA2_28 Start: 23414, Stop: 30640, Start Num: 1

Candidate Starts for GMA2_28:

(1, 23414), (2, 23612), (3, 23747), (4, 23933), (7, 24047), (8, 24056), (12, 24176), (32, 24425), (38, 24503), (Start: 91 @24773 has 16 MA's), (100, 24815), (106, 24845), (116, 24893), (120, 24911), (122, 24923), (130, 24965), (134, 24980), (142, 25025), (149, 25052), (160, 25091), (163, 25103), (169, 25133), (186, 25241), (193, 25292), (204, 25337), (207, 25358), (208, 25361), (235, 25481), (269, 25667), (280, 25742), (283, 25763), (284, 25766), (294, 25826), (323, 25979), (439, 26531), (464, 26714), (465, 26717), (466, 26720), (518, 26927), (530, 26999), (534, 27029), (544, 27056), (547, 27074), (548, 27077), (561, 27155), (564, 27191), (576, 27275), (578, 27287), (586, 27353), (594, 27404), (596, 27410), (615, 27548), (620, 27581), (628, 27614), (634, 27656), (659, 27794), (661, 27815), (665, 27836), (667, 27842), (670, 27860), (671, 27869), (711, 28055), (730, 28178), (736, 28214), (748, 28328), (769, 28457), (786, 28601), (797, 28652), (819, 28796), (825, 28826), (844, 28937), (848, 28967), (868, 29171), (871, 29186), (875, 29210), (877, 29246), (891, 29375), (892, 29381), (917, 29546), (929, 29633), (934, 29657), (937, 29672), (941, 29702), (947, 29765), (948, 29768), (1000, 30530), (1001, 30557), (1002, 30572), (1003, 30575), (1004, 30629),

Gene: GTE2_14 Start: 9463, Stop: 14106, Start Num: 129

Candidate Starts for GTE2_14:

(Start: 91 @9307 has 16 MA's), (Start: 97 @9334 has 1 MA's), (117, 9412), (129, 9463), (149, 9550), (157, 9565), (169, 9622), (172, 9640), (175, 9667), (177, 9670), (190, 9739), (202, 9796), (212, 9841), (216, 9859), (227, 9904), (237, 9940), (244, 9973), (253, 10021), (255, 10024), (262, 10072), (269, 10111), (270, 10126), (310, 10318), (315, 10336), (331, 10420), (362, 10567), (370, 10594), (392, 10687), (394, 10693), (398, 10708), (404, 10747), (419, 10825), (436, 10897), (440, 10915), (441, 10918), (462, 11080), (484, 11155), (492, 11191), (506, 11257), (518, 11302), (522, 11323), (523, 11326), (524, 11329), (530, 11365), (540, 11404), (542, 11410), (547, 11431), (549, 11437), (558, 11497), (573, 11566), (574, 11569), (577, 11587), (598, 11710), (600, 11725), (618, 11854), (622, 11875), (631, 11908), (637, 11944), (639, 11950), (665, 12082), (668, 12094), (683, 12181), (726, 12334), (735, 12385), (738, 12424), (764, 12553), (772, 12610), (777, 12655), (796, 12748), (802, 12823), (817, 12886), (833, 12967), (839, 12988), (860, 13174), (862, 13180), (887, 13399), (898, 13477), (900, 13495), (901, 13501), (909, 13561), (912, 13579), (918, 13612), (929, 13684), (937, 13723), (941, 13753), (948, 13819), (953, 13867), (961, 13927), (981, 14017), (989, 14077),

Gene: GiKK_19 Start: 9920, Stop: 14137, Start Num: 87

Candidate Starts for GiKK_19:

(Start: 87 @9920 has 7 MA's), (Start: 95 @9947 has 1 MA's), (148, 10193), (167, 10256), (179, 10313), (184, 10340), (189, 10382), (202, 10445), (205, 10460), (209, 10478), (214, 10496), (216, 10508), (224, 10541), (233, 10583), (238, 10598), (257, 10694), (258, 10703), (269, 10766), (270, 10781), (277, 10817), (285, 10868), (292, 10901), (295, 10910), (315, 10991), (327, 11057), (328, 11066), (331, 11075), (333, 11096), (360, 11231), (362, 11243), (398, 11384), (402, 11405), (408, 11438), (410, 11456), (413, 11474), (420, 11519), (436, 11573), (438, 11579), (441, 11594), (464, 11657), (480, 11705), (484, 11720), (492, 11756), (504, 11810), (510, 11837), (511, 11840), (513, 11843), (518, 11867), (519, 11870), (530, 11930), (548, 11999), (549, 12002), (553, 12020), (581, 12053), (588, 12104), (596, 12134), (600, 12158), (601, 12161), (618, 12287), (622, 12308), (625, 12317), (627, 12326), (629, 12332), (670, 12485), (682, 12554), (683, 12560), (693, 12596), (731, 12725), (756, 12866), (760, 12890), (768, 12935), (793, 13088), (794, 13091), (827, 13283), (833, 13313), (893, 13487), (902, 13559), (908, 13595), (912, 13619), (916, 13631), (921, 13673), (928, 13715), (929, 13721), (934, 13745), (938, 13763), (941, 13784), (945, 13811), (946, 13817), (948, 13850), (950, 13871), (953, 13898), (956, 13922), (961, 13958), (974, 14006), (989, 14108),

Gene: Gibbous_16 Start: 9856, Stop: 14970, Start Num: 22

Candidate Starts for Gibbous_16:

(19, 9835), (Start: 22 @9856 has 37 MA's), (25, 9883), (36, 10012), (45, 10096), (48, 10108), (58, 10159), (67, 10192), (74, 10216), (80, 10249), (99, 10339), (113, 10399), (114, 10402), (128, 10468), (137, 10504), (138, 10516), (154, 10573), (158, 10582), (161, 10603), (230, 10942), (244, 10999), (263, 11101), (274, 11167), (275, 11173), (278, 11194), (308, 11341), (320, 11398), (322, 11416), (325, 11431), (329, 11446), (334, 11485), (357, 11590), (362, 11614), (364, 11620), (391, 11731), (394, 11740), (398, 11755), (404, 11794), (420, 11890), (428, 11917), (429, 11923), (431, 11929), (440, 11962), (441, 11965), (455, 12073), (460, 12112), (466, 12145), (476, 12175), (477, 12178), (483, 12199), (484, 12202), (506, 12304), (518, 12349), (523, 12373), (524, 12376), (541, 12454), (547, 12478), (548, 12481), (549, 12484), (557, 12535), (569, 12583), (570, 12589), (577, 12634), (597, 12751), (598, 12757), (606, 12814), (613, 12868), (617, 12889), (618, 12901), (622, 12922), (623, 12925), (637, 12991), (639, 12997), (666, 13132), (678, 13198), (683, 13225), (706, 13303), (756, 13543), (761, 13573), (787, 13747), (796, 13777), (798, 13798), (816, 13906), (833, 13990), (881, 14227), (898, 14338), (900, 14356), (909, 14422), (918, 14473), (929, 14545), (937, 14584), (938, 14587), (941, 14614), (945, 14641), (948, 14680), (953, 14728), (961, 14788), (970, 14824), (980, 14878),

Gene: GoldHunter_17 Start: 9630, Stop: 14768, Start Num: 22

Candidate Starts for GoldHunter_17:

(19, 9606), (Start: 22 @9630 has 37 MA's), (25, 9657), (36, 9786), (43, 9861), (78, 10014), (79, 10017), (99, 10113), (102, 10122), (108, 10152), (111, 10158), (113, 10173), (114, 10176), (119, 10197), (135, 10269), (138, 10290), (158, 10356), (161, 10377), (185, 10494), (216, 10656), (225, 10695), (243, 10770), (271, 10929), (274, 10941), (278, 10968), (285, 11013), (289, 11025), (308, 11115), (313, 11133), (316, 11154), (321, 11184), (327, 11208), (329, 11220), (334, 11259), (340, 11292), (364, 11394), (365, 11397), (371, 11421), (394, 11514), (398, 11529), (404, 11568), (414, 11622), (420, 11664), (432, 11706), (440, 11736), (441, 11739), (455, 11847), (456, 11850), (462, 11901), (484, 11976), (504, 12066), (506, 12078), (518, 12123), (522, 12144), (523, 12147), (524, 12150), (540, 12225), (549, 12258), (554, 12279), (557, 12309), (569, 12357), (570, 12363), (574, 12390), (597, 12525), (613, 12642), (618, 12675), (622, 12696), (623, 12699), (637, 12765), (639, 12771), (641, 12786), (666, 12906), (668, 12915), (683, 12999), (756, 13320), (792, 13539), (798, 13575), (839, 13788), (874, 13980), (881, 14028), (884, 14049), (900, 14157), (909, 14223), (912, 14241), (923, 14301), (929, 14346), (935, 14376), (937, 14385), (941, 14415), (948, 14481), (953, 14529), (961, 14589), (980, 14676), (989, 14739),

Gene: Guacamole_17 Start: 10278, Stop: 15800, Start Num: 10

Candidate Starts for Guacamole_17:

(Start: 10 @10278 has 26 MA's), (12, 10293), (Start: 13 @10299 has 1 MA's), (Start: 15 @10329 has 1 MA's), (16, 10338), (17, 10341), (18, 10383), (29, 10494), (31, 10515), (Start: 40 @10635 has 14 MA's), (48, 10677), (62, 10743), (66, 10761), (72, 10782), (73, 10785), (77, 10803), (82, 10827), (100, 10911), (101, 10914), (111, 10953), (113, 10968), (115, 10977), (156, 11145), (161, 11172), (185, 11289), (191, 11337), (219, 11460), (225, 11490), (266, 11694), (274, 11739), (278, 11766), (281, 11778), (298, 11868), (308, 11913), (315, 11940), (320, 11970), (334, 12057), (335, 12060), (342, 12099), (361, 12183), (371, 12219), (380, 12261), (392, 12306), (394, 12312), (397, 12324), (398, 12327), (408, 12381), (414, 12420), (418, 12441), (419, 12444), (420, 12462), (422, 12471), (428, 12489), (434, 12510), (436, 12516), (441, 12537), (446, 12564), (454, 12642), (503, 12831), (506, 12855), (509, 12867), (510, 12870), (515, 12885), (518, 12900), (519, 12903), (529, 12954), (548, 13035), (549, 13038), (569, 13071), (575, 13101), (580, 13125), (604, 13284), (634, 13458), (642, 13506), (646, 13551), (647, 13554), (653, 13569), (663, 13614), (664, 13623), (666, 13632), (676, 13683), (689, 13755), (696, 13773), (703, 13794), (727, 13893), (728, 13896), (731, 13929), (740, 13995), (742, 14013), (745, 14028), (751, 14061), (762, 14112), (770, 14163), (776, 14211), (805, 14406), (806, 14409), (821, 14481), (822, 14484), (837, 14550), (838, 14553), (841, 14571), (849, 14631), (856, 14688), (857, 14706), (864, 14787), (865, 14790), (866, 14805), (890, 15018), (900, 15084), (907, 15138), (909, 15150), (910, 15156), (929, 15279), (934, 15303), (938, 15321), (941, 15345), (942, 15351), (945, 15372), (948, 15411), (969, 15552), (973, 15564), (982, 15615), (986, 15633), (999, 15783),

Gene: Gustav_16 Start: 9814, Stop: 14301, Start Num: 39

Candidate Starts for Gustav_16:

(Start: 39 @9814 has 7 MA's), (42, 9832), (45, 9853), (48, 9865), (55, 9898), (71, 9967), (144, 10306), (151, 10321), (165, 10381), (182, 10459), (188, 10498), (217, 10627), (226, 10660), (239, 10705), (247, 10738), (265, 10822), (267, 10828), (283, 10909), (293, 10963), (297, 10975), (335, 11158), (341, 11188), (350, 11224), (366, 11293), (375, 11326), (376, 11332), (384, 11362), (409, 11443), (411, 11464), (416, 11482), (418, 11497), (449, 11650), (453, 11689), (460, 11737), (466, 11770), (472, 11788), (486, 11836), (496, 11878), (503, 11905), (506, 11929), (509, 11941), (510, 11944), (514, 11953), (516, 11965), (523, 12004), (528, 12031), (597, 12118), (600, 12139), (606, 12181), (613, 12235), (618, 12268), (622, 12289), (623, 12292), (625, 12298), (631, 12322), (657, 12448), (662, 12472), (672, 12517), (675, 12532), (678, 12547), (680, 12565), (685, 12583), (719, 12688), (754, 12892), (756, 12901), (876, 13576), (899, 13642), (906, 13705), (914, 13750), (919, 13798), (922, 13807), (926, 13846), (930, 13882), (934, 13891), (936, 13903), (952, 14029), (962, 14107), (964, 14119), (965, 14122), (971, 14143), (972, 14146), (983, 14200),

Gene: HannahD_17 Start: 10605, Stop: 15728, Start Num: 20

Candidate Starts for HannahD_17:

(Start: 20 @10605 has 13 MA's), (Start: 22 @10614 has 37 MA's), (51, 10887), (53, 10896), (60, 10926), (90, 11055), (115, 11166), (127, 11223), (161, 11361), (172, 11415), (178, 11448), (219, 11649), (225, 11679), (244, 11757), (248, 11775), (251, 11796), (266, 11880), (271, 11913), (273, 11922), (275, 11931), (281, 11964), (282, 11976), (286, 12000), (296, 12045), (298, 12054), (307, 12090), (308, 12099), (315, 12126), (316, 12138), (320, 12156), (327, 12192), (351, 12315), (359, 12357), (392, 12492), (393, 12495), (394, 12498), (398, 12513), (408, 12567), (414, 12606), (431, 12687), (436, 12702), (441, 12723), (444, 12738), (446, 12750), (450, 12786), (453, 12822), (494, 12984), (526, 13041), (536, 13053), (537, 13056), (549, 13089), (553, 13107), (568, 13182), (569, 13188), (570, 13194), (572, 13215), (573, 13218), (574, 13221), (583, 13284), (588, 13320), (592, 13335), (598, 13359), (600, 13374), (601, 13377), (609, 13437), (626, 13536), (634, 13578), (645, 13656), (666, 13725), (669, 13743), (690, 13851), (701, 13878), (702, 13881), (716, 13920), (717, 13923), (718, 13932), (728, 13980), (739, 14067), (744, 14091), (755, 14151), (767, 14211), (779, 14289), (789, 14337), (793, 14349), (800, 14409), (805, 14451), (824, 14532), (830, 14559), (834, 14577), (840, 14607), (846, 14655), (847, 14661), (850, 14670), (855, 14718), (859, 14790), (865,

14829), (870, 14871), (896, 15057), (897, 15060), (902, 15117), (903, 15126), (904, 15138), (909, 15159), (944, 15372), (948, 15411), (956, 15480), (964, 15534), (981, 15606), (993, 15687), (995, 15711),

Gene: Hedwig_18 Start: 11001, Stop: 16013, Start Num: 20

Candidate Starts for Hedwig_18:

(Start: 20 @11001 has 13 MA's), (24, 11031), (26, 11052), (30, 11088), (53, 11292), (60, 11322), (79, 11397), (102, 11502), (115, 11562), (132, 11640), (133, 11643), (148, 11715), (161, 11757), (178, 11844), (266, 12273), (268, 12282), (271, 12306), (275, 12324), (282, 12369), (286, 12393), (296, 12438), (298, 12447), (307, 12483), (308, 12492), (314, 12516), (316, 12531), (320, 12549), (324, 12573), (334, 12636), (347, 12690), (351, 12708), (368, 12783), (375, 12813), (392, 12885), (394, 12891), (398, 12906), (402, 12927), (408, 12960), (419, 13023), (420, 13041), (428, 13068), (431, 13080), (436, 13095), (441, 13116), (457, 13236), (460, 13263), (466, 13296), (479, 13335), (483, 13350), (494, 13398), (501, 13422), (505, 13452), (521, 13515), (530, 13560), (531, 13563), (549, 13632), (560, 13704), (568, 13725), (569, 13731), (570, 13737), (573, 13761), (574, 13764), (578, 13785), (581, 13815), (583, 13827), (588, 13863), (600, 13917), (601, 13920), (602, 13926), (608, 13971), (609, 13980), (634, 14121), (640, 14154), (645, 14199), (647, 14205), (653, 14217), (666, 14268), (686, 14352), (693, 14376), (701, 14400), (702, 14403), (718, 14454), (728, 14502), (739, 14589), (744, 14613), (746, 14625), (749, 14646), (755, 14673), (774, 14778), (779, 14811), (789, 14859), (793, 14871), (807, 14943), (811, 14952), (853, 15108), (861, 15138), (891, 15330), (909, 15450), (911, 15453), (932, 15597), (944, 15660), (964, 15822), (968, 15834), (981, 15891), (992, 15966), (993, 15972), (996, 16002), (997, 16005),

Gene: Heinz_16 Start: 9889, Stop: 14187, Start Num: 40

Candidate Starts for Heinz_16:

(34, 9820), (37, 9850), (Start: 40 @9889 has 14 MA's), (44, 9916), (45, 9922), (48, 9934), (57, 9976), (71, 10024), (89, 10108), (147, 10360), (236, 10714), (241, 10735), (273, 10882), (274, 10885), (317, 11065), (326, 11098), (352, 11224), (357, 11248), (389, 11374), (390, 11377), (409, 11434), (416, 11473), (435, 11560), (453, 11680), (466, 11761), (487, 11830), (494, 11860), (495, 11863), (503, 11896), (516, 11956), (517, 11959), (553, 12049), (597, 12109), (598, 12115), (600, 12130), (601, 12133), (606, 12172), (612, 12223), (618, 12259), (630, 12310), (645, 12409), (675, 12520), (685, 12571), (688, 12595), (698, 12622), (705, 12640), (707, 12649), (720, 12688), (731, 12757), (756, 12898), (761, 12928), (788, 13114), (831, 13324), (832, 13327), (910, 13627), (923, 13705), (929, 13753), (941, 13819), (945, 13846), (948, 13885), (960, 13990), (961, 13993), (965, 14014), (975, 14047), (976, 14050),

Gene: Hexbug_18 Start: 10603, Stop: 14823, Start Num: 87

Candidate Starts for Hexbug_18:

(Start: 87 @10603 has 7 MA's), (Start: 95 @10630 has 1 MA's), (167, 10939), (179, 10996), (183, 11020), (189, 11065), (190, 11068), (198, 11110), (202, 11128), (205, 11143), (209, 11161), (211, 11170), (224, 11224), (238, 11281), (255, 11362), (262, 11410), (269, 11449), (270, 11464), (272, 11473), (277, 11500), (282, 11530), (283, 11533), (285, 11551), (315, 11674), (327, 11740), (336, 11803), (355, 11890), (371, 11959), (397, 12064), (398, 12067), (402, 12088), (408, 12121), (410, 12139), (413, 12157), (418, 12181), (420, 12202), (422, 12211), (436, 12256), (437, 12259), (441, 12277), (480, 12388), (483, 12400), (484, 12403), (492, 12439), (503, 12481), (504, 12493), (510, 12520), (519, 12553), (532, 12628), (548, 12682), (549, 12685), (553, 12703), (583, 12748), (588, 12787), (590, 12793), (596, 12817), (599, 12838), (600, 12841), (601, 12844), (618, 12970), (622, 12991), (625, 13000), (627, 13009), (629, 13015), (670, 13168), (678, 13213), (682, 13237), (683, 13243), (693, 13279), (704, 13312), (712, 13336), (724, 13387), (732, 13432), (756, 13570), (761, 13600), (827, 13981), (893, 14173), (902, 14245), (908, 14281), (912, 14305), (916, 14317), (921, 14359), (929, 14407), (941, 14470), (946, 14503), (948, 14536), (950, 14557), (953, 14584), (956, 14608), (961, 14644), (967, 14671), (970, 14680), (974, 14692), (989, 14794),

Gene: Hibiscus_16 Start: 9906, Stop: 14141, Start Num: 40

Candidate Starts for Hibiscus_16:

(34, 9837), (Start: 40 @9906 has 14 MA's), (44, 9933), (45, 9939), (56, 9996), (123, 10296), (164, 10458), (165, 10467), (220, 10725), (239, 10791), (243, 10812), (247, 10824), (254, 10848), (267, 10914), (283, 10995), (293, 11049), (306, 11094), (335, 11244), (341, 11274), (355, 11331), (361, 11364), (390, 11472), (416, 11568), (427, 11628), (433, 11649), (435, 11655), (466, 11736), (467, 11745), (495, 11838), (503, 11871), (523, 11970), (587, 12048), (597, 12084), (598, 12090), (599, 12102), (600, 12105), (606, 12147), (612, 12198), (618, 12234), (630, 12285), (645, 12384), (650, 12399), (675, 12495), (680, 12528), (685, 12546), (688, 12570), (698, 12597), (705, 12615), (707, 12624), (720, 12663), (731, 12732), (756, 12873), (761, 12903), (782, 13038), (799, 13146), (831, 13290), (832, 13293), (910, 13581), (929, 13707), (941, 13773), (945, 13800), (948, 13839), (958, 13926), (965, 13968),

Gene: HippoPololi_18 Start: 10513, Stop: 15630, Start Num: 22

Candidate Starts for HippoPololi_18:

(19, 10492), (Start: 22 @10513 has 37 MA's), (25, 10540), (36, 10669), (45, 10753), (52, 10792), (58, 10816), (74, 10873), (79, 10900), (80, 10906), (99, 10996), (113, 11056), (114, 11059), (128, 11125), (138, 11173), (158, 11239), (161, 11260), (230, 11599), (243, 11653), (244, 11656), (263, 11758), (272, 11815), (273, 11821), (274, 11824), (275, 11830), (278, 11851), (298, 11953), (320, 12055), (322, 12073), (334, 12142), (344, 12190), (357, 12247), (362, 12271), (364, 12277), (394, 12397), (398, 12412), (404, 12451), (418, 12526), (420, 12547), (428, 12574), (429, 12580), (440, 12619), (441, 12622), (455, 12730), (466, 12802), (483, 12856), (506, 12961), (518, 13006), (523, 13030), (541, 13111), (548, 13138), (549, 13141), (557, 13192), (569, 13240), (570, 13246), (577, 13291), (597, 13408), (598, 13414), (606, 13471), (613, 13525), (617, 13546), (618, 13558), (622, 13579), (623, 13582), (637, 13648), (639, 13654), (666, 13789), (668, 13798), (678, 13855), (683, 13882), (713, 13975), (756, 14203), (759, 14224), (761, 14233), (787, 14407), (796, 14437), (798, 14458), (833, 14650), (858, 14740), (881, 14887), (884, 14908), (900, 15016), (903, 15049), (909, 15082), (918, 15133), (929, 15205), (937, 15244), (938, 15247), (941, 15274), (946, 15307), (948, 15340), (950, 15361), (953, 15388), (970, 15484), (980, 15538),

Gene: Hitter_17 Start: 10274, Stop: 15796, Start Num: 10

Candidate Starts for Hitter_17:

(Start: 10 @10274 has 26 MA's), (12, 10289), (Start: 13 @10295 has 1 MA's), (Start: 15 @10325 has 1 MA's), (16, 10334), (17, 10337), (18, 10379), (29, 10490), (31, 10511), (62, 10739), (66, 10757), (70, 10772), (72, 10778), (73, 10781), (77, 10799), (82, 10823), (100, 10907), (102, 10913), (111, 10949), (113, 10964), (115, 10973), (156, 11141), (161, 11168), (185, 11285), (219, 11456), (225, 11486), (266, 11690), (274, 11735), (308, 11909), (315, 11936), (320, 11966), (334, 12053), (342, 12095), (361, 12179), (371, 12215), (380, 12257), (392, 12302), (394, 12308), (397, 12320), (398, 12323), (408, 12377), (414, 12416), (418, 12437), (419, 12440), (420, 12458), (422, 12467), (428, 12485), (434, 12506), (436, 12512), (441, 12533), (446, 12560), (454, 12638), (503, 12827), (506, 12851), (509, 12863), (510, 12866), (515, 12881), (518, 12896), (519, 12899), (529, 12950), (548, 13031), (549, 13034), (569, 13067), (575, 13097), (580, 13121), (634, 13454), (642, 13502), (646, 13547), (647, 13550), (653, 13565), (663, 13610), (664, 13619), (666, 13628), (676, 13679), (689, 13751), (696, 13769), (703, 13790), (727, 13889), (728, 13892), (731, 13925), (740, 13991), (742, 14009), (745, 14024), (751, 14057), (762, 14108), (770, 14159), (805, 14402), (806, 14405), (821, 14477), (822, 14480), (837, 14546), (838, 14549), (841, 14567), (849, 14627), (856, 14684), (857, 14702), (864, 14783), (865, 14786), (866, 14801), (890, 15014), (900, 15080), (901, 15086), (909, 15146), (910, 15152), (929, 15275), (934, 15299), (938, 15317), (941, 15341), (942, 15347), (945, 15368), (948, 15407), (969, 15548), (973, 15560), (982, 15611), (986, 15629), (999, 15779),

Gene: Horseradish_17 Start: 9515, Stop: 14311, Start Num: 91

Candidate Starts for Horseradish_17:

(Start: 91 @9515 has 16 MA's), (Start: 97 @9542 has 1 MA's), (98, 9548), (129, 9671), (157, 9773), (165, 9818), (169, 9830), (172, 9848), (175, 9875), (177, 9878), (181, 9893), (189, 9944), (190, 9947), (202, 10004), (203, 10007), (204, 10010), (212, 10049), (216, 10067), (227, 10112), (237, 10148), (244, 10181), (250, 10214), (252, 10226), (262, 10280), (269, 10319), (270, 10334), (272, 10343), (277, 10370), (285, 10421), (299, 10481), (301, 10490), (315, 10544), (325, 10607), (329, 10622), (340, 10685), (362, 10775), (370, 10802), (392, 10895), (394, 10901), (398, 10916), (404, 10955), (419, 11033), (424, 11066), (436, 11105), (440, 11123), (441, 11126), (446, 11153), (452, 11210), (454, 11231), (478, 11342), (484, 11363), (492, 11399), (503, 11441), (504, 11453), (506, 11465), (518, 11510), (519, 11513), (522, 11531), (523, 11534), (524, 11537), (540, 11612), (549, 11645), (558, 11705), (572, 11771), (573, 11774), (574, 11777), (577, 11795), (592, 11894), (596, 11909), (597, 11912), (618, 12062), (622, 12083), (632, 12125), (637, 12152), (639, 12158), (665, 12290), (668, 12302), (683, 12389), (694, 12431), (706, 12467), (719, 12503), (726, 12542), (735, 12593), (738, 12632), (752, 12710), (764, 12761), (772, 12818), (796, 12956), (802, 13028), (833, 13172), (839, 13193), (860, 13370), (862, 13376), (900, 13700), (901, 13706), (909, 13766), (912, 13784), (918, 13817), (929, 13889), (937, 13928), (941, 13958), (948, 14024), (949, 14042), (953, 14072), (961, 14132), (981, 14222), (989, 14282),

Gene: Jalammah_19 Start: 11050, Stop: 16590, Start Num: 10

Candidate Starts for Jalammah_19:

(Start: 10 @11050 has 26 MA's), (Start: 15 @11101 has 1 MA's), (16, 11110), (17, 11113), (18, 11155), (29, 11266), (31, 11287), (Start: 40 @11407 has 14 MA's), (48, 11449), (62, 11515), (66, 11533), (72, 11554), (73, 11557), (77, 11575), (82, 11599), (100, 11683), (111, 11725), (113, 11740), (115, 11749), (156, 11917), (161, 11944), (185, 12061), (219, 12232), (225, 12262), (266, 12466), (274, 12511), (278, 12538), (281, 12550), (298, 12640), (308, 12685), (315, 12712), (320, 12742), (334, 12829), (335, 12832), (342, 12871), (361, 12955), (371, 12991), (380, 13033), (392, 13078), (394, 13084), (397, 13096), (398, 13099), (408, 13153), (414, 13192), (418, 13213), (419, 13216), (420, 13234), (428, 13261), (434, 13282), (436, 13288), (441, 13309), (446, 13336), (484, 13546), (503, 13624), (506, 13648), (509, 13660), (510, 13663), (515, 13678), (518, 13693), (519, 13696), (529, 13747), (548, 13828), (549, 13831), (569, 13864), (575, 13894), (580, 13918), (587, 13984), (634, 14251), (642, 14299), (646, 14344), (647, 14347), (653, 14362), (663, 14407), (664, 14416), (666, 14425), (676, 14476), (689, 14548), (696, 14566), (703, 14587), (727, 14686), (728, 14689), (731, 14722), (740, 14788), (742, 14806), (745, 14821), (751, 14854), (762, 14905), (770, 14956), (805, 15199), (806, 15202), (821, 15274), (822, 15277), (837, 15343), (838, 15346), (841, 15364), (849, 15424), (856, 15481), (857, 15499), (864, 15580), (865, 15583), (866, 15598), (883, 15757), (890, 15811), (900, 15877), (901, 15883), (909, 15943), (910, 15949), (916, 15979), (929, 16072), (934, 16096), (938, 16114), (941, 16138), (942, 16144), (945, 16165), (948, 16204), (969, 16345), (973, 16357), (982, 16408), (986, 16426), (999, 16576),

Gene: Jamzy_19 Start: 9930, Stop: 14147, Start Num: 87

Candidate Starts for Jamzy_19:

(Start: 87 @9930 has 7 MA's), (Start: 95 @9957 has 1 MA's), (148, 10203), (167, 10266), (179, 10323), (184, 10350), (189, 10392), (202, 10455), (205, 10470), (209, 10488), (214, 10506), (216, 10518), (224, 10551), (233, 10593), (238, 10608), (257, 10704), (258, 10713), (269, 10776), (270, 10791), (277, 10827), (285, 10878), (292, 10911), (295, 10920), (315, 11001), (327, 11067), (328, 11076), (331, 11085), (333, 11106), (360, 11241), (362, 11253), (398, 11394), (402, 11415), (408, 11448), (410, 11466), (413, 11484), (420, 11529), (436, 11583), (441, 11604), (464, 11667), (480, 11715), (484, 11730), (492, 11766), (504, 11820), (510, 11847), (513, 11853), (518, 11877), (519, 11880), (530, 11940), (538, 11973), (549, 12012), (553, 12030), (554, 12033), (583, 12075), (584, 12087), (590, 12120), (591, 12123), (596, 12144), (600, 12168), (601, 12171), (613, 12264), (617, 12285), (618, 12297), (622, 12318), (625, 12327), (627, 12336), (629, 12342), (670, 12495), (679, 12555), (682, 12564), (683, 12570), (693, 12606), (732, 12738), (756, 12876), (760, 12900), (793, 13098), (794, 13101), (820, 13263), (826, 13287), (827, 13290), (863, 13392), (893, 13497), (902, 13569), (905, 13593), (908, 13605), (912, 13629), (916, 13641), (928, 13725), (929, 13731), (938, 13773),

(941, 13794), (946, 13827), (948, 13860), (950, 13881), (953, 13908), (961, 13968), (967, 13995), (970, 14004), (974, 14016), (989, 14118),

Gene: JasperJr_17 Start: 10278, Stop: 15800, Start Num: 10

Candidate Starts for JasperJr_17:

(Start: 10 @10278 has 26 MA's), (12, 10293), (Start: 13 @10299 has 1 MA's), (Start: 15 @10329 has 1 MA's), (16, 10338), (17, 10341), (18, 10383), (29, 10494), (31, 10515), (Start: 40 @10635 has 14 MA's), (48, 10677), (62, 10743), (66, 10761), (72, 10782), (73, 10785), (77, 10803), (82, 10827), (100, 10911), (101, 10914), (111, 10953), (113, 10968), (115, 10977), (156, 11145), (161, 11172), (185, 11289), (191, 11337), (219, 11460), (225, 11490), (266, 11694), (274, 11739), (278, 11766), (281, 11778), (298, 11868), (308, 11913), (315, 11940), (320, 11970), (334, 12057), (335, 12060), (342, 12099), (361, 12183), (371, 12219), (380, 12261), (392, 12306), (394, 12312), (397, 12324), (398, 12327), (408, 12381), (414, 12420), (418, 12441), (419, 12444), (420, 12462), (422, 12471), (428, 12489), (434, 12510), (436, 12516), (441, 12537), (446, 12564), (454, 12642), (503, 12831), (506, 12855), (509, 12867), (510, 12870), (515, 12885), (518, 12900), (519, 12903), (529, 12954), (548, 13035), (549, 13038), (569, 13071), (575, 13101), (580, 13125), (604, 13284), (634, 13458), (642, 13506), (646, 13551), (647, 13554), (653, 13569), (663, 13614), (664, 13623), (666, 13632), (676, 13683), (689, 13755), (696, 13773), (703, 13794), (727, 13893), (728, 13896), (731, 13929), (740, 13995), (742, 14013), (745, 14028), (751, 14061), (762, 14112), (770, 14163), (776, 14211), (805, 14406), (806, 14409), (821, 14481), (822, 14484), (837, 14550), (838, 14553), (841, 14571), (849, 14631), (856, 14688), (857, 14706), (864, 14787), (865, 14790), (866, 14805), (890, 15018), (900, 15084), (907, 15138), (909, 15150), (910, 15156), (929, 15279), (934, 15303), (938, 15321), (941, 15345), (942, 15351), (945, 15372), (948, 15411), (969, 15552), (973, 15564), (982, 15615), (986, 15633), (999, 15783),

Gene: Jecs_18 Start: 10920, Stop: 16037, Start Num: 20

Candidate Starts for Jecs_18:

(Start: 20 @10920 has 13 MA's), (Start: 22 @10929 has 37 MA's), (51, 11202), (53, 11211), (60, 11241), (63, 11250), (77, 11307), (82, 11331), (105, 11442), (112, 11463), (115, 11481), (148, 11634), (154, 11646), (161, 11676), (216, 11955), (217, 11958), (225, 11994), (244, 12072), (266, 12195), (271, 12228), (275, 12246), (281, 12279), (282, 12291), (286, 12315), (296, 12360), (298, 12369), (307, 12405), (315, 12441), (316, 12453), (320, 12471), (327, 12507), (351, 12630), (356, 12654), (359, 12672), (392, 12807), (394, 12813), (398, 12828), (408, 12882), (411, 12909), (412, 12912), (414, 12921), (418, 12942), (419, 12945), (420, 12963), (422, 12972), (434, 13011), (436, 13017), (441, 13038), (446, 13065), (451, 13113), (454, 13143), (475, 13221), (484, 13254), (494, 13299), (526, 13356), (536, 13368), (537, 13371), (549, 13404), (569, 13503), (570, 13509), (572, 13530), (573, 13533), (574, 13536), (577, 13554), (583, 13599), (588, 13635), (598, 13674), (600, 13689), (601, 13692), (602, 13698), (608, 13743), (609, 13752), (626, 13851), (634, 13893), (645, 13971), (666, 14040), (669, 14058), (690, 14166), (693, 14169), (701, 14193), (702, 14196), (709, 14217), (716, 14235), (717, 14238), (718, 14247), (741, 14400), (744, 14406), (767, 14526), (779, 14604), (789, 14652), (793, 14664), (800, 14724), (824, 14844), (830, 14871), (834, 14889), (846, 14967), (847, 14973), (850, 14982), (852, 15009), (859, 15102), (865, 15141), (870, 15183), (889, 15336), (896, 15369), (897, 15372), (902, 15429), (903, 15438), (904, 15450), (909, 15471), (944, 15684), (948, 15723), (956, 15792), (964, 15846), (993, 15999),

Gene: Jojo24_16 Start: 9900, Stop: 14138, Start Num: 40

Candidate Starts for Jojo24_16:

(34, 9831), (Start: 40 @9900 has 14 MA's), (44, 9927), (45, 9933), (56, 9990), (104, 10197), (123, 10290), (164, 10452), (165, 10461), (220, 10719), (239, 10785), (243, 10806), (247, 10818), (254, 10842), (283, 10989), (293, 11043), (306, 11088), (335, 11238), (341, 11268), (355, 11325), (361, 11358), (389, 11463), (390, 11466), (414, 11556), (416, 11562), (427, 11622), (433, 11643), (435, 11649), (466, 11730), (467, 11739), (495, 11832), (503, 11865), (516, 11925), (517, 11928), (523, 11964), (597, 12078), (598, 12084), (599, 12096), (600, 12099), (606, 12141), (612, 12192), (618,

12228), (630, 12279), (631, 12282), (645, 12378), (650, 12393), (675, 12489), (685, 12540), (688, 12564), (698, 12591), (705, 12609), (707, 12618), (720, 12657), (731, 12726), (756, 12867), (761, 12897), (782, 13032), (794, 13098), (799, 13140), (831, 13281), (832, 13284), (910, 13578), (929, 13704), (941, 13770), (948, 13836), (958, 13923), (965, 13965),

Gene: JuJu_17 Start: 10202, Stop: 15721, Start Num: 10

Candidate Starts for JuJu_17:

(Start: 10 @10202 has 26 MA's), (12, 10217), (Start: 13 @10223 has 1 MA's), (Start: 15 @10253 has 1 MA's), (16, 10262), (17, 10265), (18, 10307), (29, 10418), (31, 10439), (66, 10685), (72, 10706), (73, 10709), (77, 10727), (82, 10751), (100, 10835), (102, 10841), (111, 10877), (113, 10892), (115, 10901), (119, 10916), (128, 10961), (156, 11069), (161, 11096), (168, 11129), (225, 11414), (266, 11618), (274, 11663), (308, 11837), (315, 11864), (320, 11894), (334, 11981), (342, 12023), (359, 12095), (371, 12143), (380, 12185), (392, 12230), (394, 12236), (397, 12248), (398, 12251), (408, 12305), (414, 12344), (418, 12365), (419, 12368), (420, 12386), (422, 12395), (428, 12413), (434, 12434), (436, 12440), (441, 12461), (446, 12488), (454, 12566), (483, 12674), (500, 12740), (506, 12779), (518, 12824), (519, 12827), (529, 12878), (548, 12959), (549, 12962), (569, 12995), (575, 13025), (587, 13115), (603, 13196), (621, 13316), (634, 13382), (642, 13430), (646, 13475), (647, 13478), (653, 13493), (655, 13502), (663, 13538), (664, 13547), (666, 13556), (689, 13679), (703, 13718), (727, 13817), (728, 13820), (740, 13919), (742, 13937), (745, 13952), (751, 13985), (762, 14036), (770, 14087), (780, 14156), (805, 14330), (806, 14333), (820, 14399), (821, 14405), (822, 14408), (837, 14474), (838, 14477), (841, 14495), (849, 14555), (856, 14612), (857, 14630), (864, 14711), (866, 14729), (873, 14780), (883, 14888), (890, 14942), (900, 15008), (907, 15062), (909, 15074), (910, 15080), (916, 15110), (929, 15203), (934, 15227), (938, 15245), (941, 15269), (942, 15275), (945, 15296), (948, 15335), (969, 15476), (982, 15539), (986, 15557), (991, 15614), (999, 15707),

Gene: KappaFarmDelta_17 Start: 10424, Stop: 15964, Start Num: 10

Candidate Starts for KappaFarmDelta_17:

(Start: 10 @10424 has 26 MA's), (12, 10439), (Start: 13 @10445 has 1 MA's), (Start: 15 @10475 has 1 MA's), (16, 10484), (17, 10487), (18, 10529), (29, 10640), (31, 10661), (62, 10889), (66, 10907), (72, 10928), (73, 10931), (77, 10949), (82, 10973), (100, 11057), (102, 11063), (111, 11099), (113, 11114), (115, 11123), (156, 11291), (161, 11318), (185, 11435), (219, 11606), (225, 11636), (266, 11840), (274, 11885), (278, 11912), (308, 12059), (315, 12086), (320, 12116), (334, 12203), (335, 12206), (342, 12245), (344, 12251), (371, 12365), (380, 12407), (392, 12452), (394, 12458), (397, 12470), (398, 12473), (408, 12527), (414, 12566), (418, 12587), (419, 12590), (420, 12608), (428, 12635), (434, 12656), (436, 12662), (441, 12683), (446, 12710), (453, 12782), (500, 12983), (503, 12998), (506, 13022), (510, 13037), (518, 13067), (519, 13070), (529, 13121), (549, 13205), (569, 13238), (580, 13292), (618, 13547), (634, 13625), (642, 13673), (644, 13706), (646, 13718), (647, 13721), (653, 13736), (655, 13745), (663, 13781), (664, 13790), (666, 13799), (687, 13907), (701, 13955), (702, 13958), (703, 13961), (710, 13982), (728, 14063), (729, 14066), (745, 14192), (751, 14225), (761, 14273), (762, 14276), (765, 14291), (770, 14327), (805, 14570), (806, 14573), (821, 14645), (822, 14648), (837, 14714), (838, 14717), (841, 14735), (849, 14795), (856, 14852), (857, 14870), (864, 14951), (866, 14969), (890, 15182), (900, 15248), (909, 15314), (910, 15320), (916, 15350), (929, 15443), (934, 15467), (941, 15509), (945, 15536), (948, 15575), (969, 15716), (982, 15779), (986, 15797), (991, 15854),

Gene: KayGee_16 Start: 9384, Stop: 14468, Start Num: 22

Candidate Starts for KayGee_16:

(Start: 22 @9384 has 37 MA's), (36, 9540), (54, 9669), (61, 9699), (78, 9768), (81, 9780), (90, 9825), (99, 9867), (102, 9876), (111, 9912), (115, 9936), (139, 10050), (148, 10089), (151, 10095), (154, 10101), (158, 10110), (161, 10131), (192, 10302), (205, 10365), (216, 10410), (236, 10491), (266, 10650), (271, 10683), (274, 10695), (278, 10722), (289, 10779), (295, 10809), (297, 10821), (319, 10923), (320, 10926), (334, 11013), (344, 11061), (371, 11175), (394, 11268), (398, 11283), (402,

11304), (408, 11337), (412, 11367), (415, 11379), (420, 11418), (427, 11442), (428, 11445), (435, 11469), (441, 11493), (454, 11598), (464, 11646), (475, 11676), (479, 11691), (483, 11706), (492, 11745), (503, 11787), (504, 11799), (506, 11811), (510, 11826), (515, 11841), (518, 11856), (523, 11880), (530, 11919), (532, 11934), (533, 11940), (541, 11961), (547, 11985), (549, 11991), (572, 12117), (579, 12147), (584, 12198), (591, 12234), (596, 12255), (597, 12258), (607, 12330), (613, 12375), (618, 12408), (622, 12429), (634, 12483), (645, 12558), (668, 12642), (683, 12729), (733, 12915), (756, 13047), (761, 13077), (782, 13215), (793, 13266), (798, 13296), (827, 13452), (833, 13482), (867, 13662), (875, 13713), (881, 13740), (884, 13761), (900, 13857), (905, 13905), (909, 13923), (929, 14046), (934, 14070), (937, 14085), (941, 14115), (945, 14142), (946, 14148), (948, 14181), (955, 14250), (956, 14253), (961, 14289), (981, 14379),

Gene: Kiko_18 Start: 10875, Stop: 15764, Start Num: 20

Candidate Starts for Kiko_18:

(Start: 20 @10875 has 13 MA's), (23, 10899), (30, 10962), (33, 11019), (43, 11115), (46, 11127), (49, 11142), (53, 11166), (60, 11196), (86, 11307), (Start: 87 @11313 has 7 MA's), (88, 11316), (89, 11322), (90, 11325), (94, 11337), (102, 11376), (112, 11418), (114, 11430), (126, 11490), (135, 11523), (148, 11589), (158, 11610), (161, 11631), (172, 11685), (178, 11718), (199, 11835), (216, 11910), (219, 11919), (225, 11949), (244, 12027), (266, 12147), (273, 12189), (275, 12198), (281, 12231), (282, 12243), (286, 12267), (289, 12276), (298, 12321), (307, 12357), (308, 12366), (313, 12384), (320, 12423), (327, 12459), (328, 12468), (334, 12510), (351, 12582), (364, 12645), (383, 12723), (391, 12756), (392, 12759), (394, 12765), (398, 12780), (402, 12801), (407, 12831), (408, 12834), (415, 12876), (422, 12924), (428, 12942), (429, 12948), (434, 12963), (436, 12969), (440, 12987), (441, 12990), (446, 13017), (451, 13065), (452, 13074), (457, 13110), (458, 13113), (466, 13170), (476, 13200), (483, 13224), (494, 13272), (501, 13296), (503, 13305), (505, 13326), (527, 13416), (547, 13500), (549, 13506), (581, 13557), (588, 13605), (592, 13620), (598, 13644), (599, 13656), (600, 13659), (601, 13662), (602, 13668), (608, 13713), (609, 13722), (634, 13863), (640, 13896), (645, 13941), (690, 14136), (693, 14139), (694, 14145), (716, 14205), (718, 14217), (737, 14322), (744, 14376), (750, 14412), (755, 14436), (791, 14637), (813, 14727), (845, 14844), (853, 14886), (894, 15093), (897, 15102), (903, 15168), (909, 15201), (944, 15411), (964, 15573), (968, 15585), (981, 15642), (994, 15726), (996, 15753),

Gene: Lauer_15 Start: 9433, Stop: 14517, Start Num: 22

Candidate Starts for Lauer_15:

(Start: 22 @9433 has 37 MA's), (36, 9589), (54, 9718), (61, 9748), (78, 9817), (81, 9829), (99, 9916), (102, 9925), (111, 9961), (115, 9985), (128, 10045), (139, 10099), (148, 10138), (151, 10144), (158, 10159), (161, 10180), (192, 10351), (205, 10414), (216, 10459), (236, 10540), (266, 10699), (271, 10732), (274, 10744), (278, 10771), (289, 10828), (295, 10858), (297, 10870), (319, 10972), (320, 10975), (334, 11062), (344, 11110), (371, 11224), (394, 11317), (398, 11332), (402, 11353), (408, 11386), (412, 11416), (415, 11428), (420, 11467), (427, 11491), (428, 11494), (435, 11518), (441, 11542), (454, 11647), (475, 11725), (483, 11755), (484, 11758), (492, 11794), (503, 11836), (506, 11860), (510, 11875), (515, 11890), (518, 11905), (523, 11929), (530, 11968), (532, 11983), (533, 11989), (541, 12010), (547, 12034), (549, 12040), (572, 12166), (579, 12196), (583, 12235), (591, 12283), (596, 12304), (597, 12307), (607, 12379), (613, 12424), (618, 12457), (622, 12478), (634, 12532), (645, 12607), (668, 12691), (683, 12778), (733, 12964), (756, 13096), (761, 13126), (782, 13264), (793, 13315), (798, 13345), (827, 13501), (833, 13531), (867, 13711), (875, 13762), (881, 13789), (884, 13810), (900, 13906), (905, 13954), (909, 13972), (929, 14095), (934, 14119), (937, 14134), (941, 14164), (945, 14191), (946, 14197), (948, 14230), (955, 14299), (956, 14302), (961, 14338), (981, 14428),

Gene: Lysidious_18 Start: 10777, Stop: 16320, Start Num: 10

Candidate Starts for Lysidious_18:

(Start: 10 @10777 has 26 MA's), (Start: 15 @10828 has 1 MA's), (16, 10837), (17, 10840), (18, 10882), (29, 10993), (31, 11014), (Start: 40 @11134 has 14 MA's), (48, 11176), (62, 11242), (66, 11260), (72,

11281), (73, 11284), (77, 11302), (82, 11326), (100, 11410), (102, 11416), (111, 11452), (113, 11467), (115, 11476), (156, 11644), (161, 11671), (185, 11788), (219, 11959), (225, 11989), (266, 12193), (274, 12238), (278, 12265), (281, 12277), (298, 12367), (308, 12412), (315, 12439), (320, 12469), (334, 12556), (335, 12559), (342, 12598), (371, 12718), (380, 12760), (392, 12805), (394, 12811), (397, 12823), (398, 12826), (408, 12880), (414, 12919), (418, 12940), (419, 12943), (420, 12961), (422, 12970), (428, 12988), (434, 13009), (436, 13015), (441, 13036), (446, 13063), (483, 13270), (503, 13351), (506, 13375), (509, 13387), (510, 13390), (515, 13405), (518, 13420), (519, 13423), (529, 13474), (548, 13555), (549, 13558), (569, 13591), (575, 13621), (580, 13645), (587, 13711), (634, 13978), (642, 14026), (646, 14071), (647, 14074), (653, 14089), (663, 14134), (664, 14143), (666, 14152), (676, 14203), (689, 14275), (696, 14293), (703, 14314), (727, 14413), (728, 14416), (731, 14449), (740, 14515), (742, 14533), (745, 14548), (751, 14581), (762, 14632), (770, 14683), (805, 14926), (806, 14929), (821, 15001), (822, 15004), (837, 15070), (838, 15073), (841, 15091), (849, 15151), (856, 15208), (857, 15226), (864, 15307), (865, 15310), (866, 15325), (883, 15484), (890, 15538), (900, 15604), (901, 15610), (909, 15670), (910, 15676), (929, 15799), (934, 15823), (938, 15841), (941, 15865), (942, 15871), (945, 15892), (948, 15931), (969, 16072), (973, 16084), (982, 16135), (986, 16153), (991, 16210), (999, 16303),

Gene: MAnor_16 Start: 9376, Stop: 14475, Start Num: 22

Candidate Starts for MAnor_16:

(Start: 22 @9376 has 37 MA's), (36, 9532), (50, 9637), (54, 9661), (66, 9712), (78, 9760), (88, 9808), (90, 9817), (99, 9859), (101, 9865), (102, 9868), (111, 9904), (115, 9928), (121, 9955), (139, 10042), (148, 10081), (151, 10087), (158, 10102), (161, 10123), (192, 10294), (205, 10357), (216, 10402), (225, 10441), (236, 10483), (266, 10645), (268, 10654), (271, 10678), (274, 10690), (278, 10717), (281, 10729), (289, 10774), (295, 10804), (297, 10816), (319, 10918), (320, 10921), (334, 11008), (338, 11035), (354, 11095), (360, 11125), (365, 11146), (371, 11170), (394, 11263), (398, 11278), (400, 11287), (402, 11299), (408, 11332), (415, 11374), (426, 11434), (427, 11437), (428, 11440), (429, 11446), (435, 11464), (441, 11488), (454, 11593), (483, 11701), (484, 11704), (492, 11740), (506, 11806), (510, 11821), (515, 11836), (518, 11851), (522, 11872), (523, 11875), (524, 11878), (530, 11914), (532, 11929), (533, 11935), (541, 11956), (547, 11980), (549, 11986), (572, 12112), (579, 12142), (583, 12181), (591, 12229), (596, 12250), (597, 12253), (598, 12259), (607, 12325), (613, 12370), (618, 12403), (622, 12424), (634, 12478), (666, 12628), (668, 12637), (683, 12724), (731, 12901), (756, 13042), (761, 13072), (782, 13210), (798, 13291), (827, 13444), (833, 13474), (872, 13696), (874, 13705), (875, 13711), (881, 13747), (900, 13864), (905, 13912), (909, 13930), (929, 14053), (934, 14077), (937, 14092), (941, 14122), (945, 14149), (946, 14155), (948, 14188), (955, 14257), (956, 14260), (961, 14296), (978, 14368), (979, 14371), (981, 14386),

Gene: MScarn_18 Start: 9601, Stop: 14400, Start Num: 91

Candidate Starts for MScarn_18:

(Start: 91 @9601 has 16 MA's), (Start: 97 @9628 has 1 MA's), (98, 9634), (129, 9757), (157, 9859), (165, 9904), (169, 9916), (172, 9934), (175, 9961), (177, 9964), (181, 9979), (189, 10030), (190, 10033), (202, 10090), (203, 10093), (212, 10135), (216, 10153), (227, 10198), (237, 10234), (244, 10267), (250, 10300), (252, 10312), (262, 10366), (269, 10405), (270, 10420), (272, 10429), (277, 10456), (285, 10507), (299, 10567), (301, 10576), (315, 10630), (325, 10693), (329, 10708), (362, 10861), (370, 10888), (392, 10981), (394, 10987), (398, 11002), (404, 11041), (419, 11119), (424, 11152), (436, 11191), (440, 11209), (441, 11212), (446, 11239), (452, 11296), (454, 11317), (478, 11428), (484, 11449), (492, 11485), (503, 11527), (504, 11539), (506, 11551), (518, 11596), (519, 11599), (522, 11617), (523, 11620), (524, 11623), (540, 11698), (549, 11731), (558, 11791), (572, 11857), (573, 11860), (574, 11863), (577, 11881), (592, 11980), (596, 11995), (597, 11998), (618, 12148), (622, 12169), (632, 12211), (637, 12238), (639, 12244), (668, 12388), (683, 12475), (694, 12517), (706, 12553), (726, 12628), (735, 12679), (738, 12718), (743, 12742), (764, 12847), (772, 12904), (796, 13042), (802, 13117), (833, 13261), (839, 13282), (860, 13459), (862, 13465), (900, 13789), (901, 13795), (909, 13855), (918, 13906), (929, 13978), (937, 14017), (941, 14047), (948, 14113), (953, 14161), (961, 14221), (981, 14311), (989, 14371),

Gene: MaVan_18 Start: 10619, Stop: 15748, Start Num: 22

Candidate Starts for MaVan_18:

(19, 10598), (Start: 22 @10619 has 37 MA's), (25, 10646), (36, 10775), (48, 10871), (58, 10922), (74, 10979), (80, 11012), (81, 11015), (99, 11102), (103, 11114), (113, 11162), (114, 11165), (115, 11171), (126, 11225), (128, 11231), (138, 11279), (158, 11345), (161, 11366), (243, 11759), (244, 11762), (263, 11864), (274, 11930), (275, 11936), (278, 11957), (320, 12161), (322, 12179), (327, 12197), (329, 12209), (334, 12248), (336, 12260), (344, 12296), (357, 12353), (362, 12377), (364, 12383), (394, 12503), (398, 12518), (404, 12557), (418, 12632), (423, 12665), (428, 12680), (429, 12686), (431, 12692), (441, 12728), (455, 12836), (466, 12908), (483, 12962), (485, 12968), (518, 13112), (523, 13136), (533, 13196), (538, 13208), (540, 13214), (547, 13241), (548, 13244), (549, 13247), (568, 13340), (569, 13346), (577, 13397), (586, 13466), (593, 13499), (597, 13514), (598, 13520), (606, 13577), (608, 13589), (612, 13628), (613, 13631), (617, 13652), (618, 13664), (622, 13685), (623, 13688), (632, 13727), (634, 13739), (637, 13754), (666, 13895), (683, 13991), (703, 14057), (710, 14078), (713, 14084), (756, 14321), (761, 14351), (768, 14390), (787, 14525), (796, 14555), (798, 14576), (827, 14735), (833, 14768), (874, 14981), (880, 14999), (881, 15005), (900, 15134), (909, 15200), (918, 15251), (929, 15323), (937, 15362), (941, 15392), (946, 15425), (948, 15458), (956, 15530), (970, 15602), (980, 15656), (982, 15662), (989, 15719),

Gene: MagicMan_17 Start: 10932, Stop: 16046, Start Num: 20

Candidate Starts for MagicMan_17:

(Start: 20 @10932 has 13 MA's), (Start: 22 @10941 has 37 MA's), (51, 11214), (53, 11223), (60, 11253), (63, 11262), (77, 11319), (90, 11382), (105, 11454), (112, 11475), (115, 11493), (148, 11646), (161, 11688), (172, 11742), (178, 11775), (216, 11967), (217, 11970), (225, 12006), (244, 12084), (251, 12123), (266, 12207), (271, 12240), (273, 12249), (275, 12258), (281, 12291), (282, 12303), (286, 12327), (296, 12372), (298, 12381), (307, 12417), (308, 12426), (315, 12453), (316, 12465), (320, 12483), (327, 12519), (351, 12642), (359, 12684), (392, 12819), (393, 12822), (394, 12825), (398, 12840), (408, 12894), (414, 12933), (428, 13002), (431, 13014), (436, 13029), (441, 13050), (444, 13065), (446, 13077), (450, 13113), (453, 13149), (494, 13311), (526, 13368), (536, 13380), (537, 13383), (549, 13416), (568, 13509), (569, 13515), (570, 13521), (572, 13542), (573, 13545), (574, 13548), (583, 13611), (588, 13647), (592, 13662), (598, 13686), (600, 13701), (601, 13704), (602, 13710), (609, 13764), (626, 13863), (634, 13905), (645, 13983), (654, 14007), (666, 14052), (690, 14178), (694, 14187), (701, 14205), (702, 14208), (716, 14247), (717, 14250), (718, 14259), (744, 14418), (767, 14538), (779, 14616), (789, 14664), (793, 14676), (800, 14736), (824, 14853), (830, 14880), (834, 14898), (846, 14976), (847, 14982), (850, 14991), (852, 15018), (859, 15111), (865, 15150), (870, 15192), (889, 15345), (896, 15378), (897, 15381), (902, 15438), (903, 15447), (904, 15459), (909, 15480), (913, 15501), (944, 15693), (948, 15732), (956, 15801), (964, 15855), (993, 16008),

Gene: Mahdia_16 Start: 9733, Stop: 13983, Start Num: 39

Candidate Starts for Mahdia_16:

(Start: 39 @9733 has 7 MA's), (42, 9751), (48, 9784), (55, 9817), (81, 9928), (131, 10159), (144, 10225), (151, 10240), (165, 10300), (173, 10339), (188, 10417), (193, 10447), (205, 10501), (217, 10546), (226, 10579), (239, 10624), (247, 10657), (267, 10747), (283, 10828), (293, 10882), (297, 10894), (311, 10951), (327, 11026), (335, 11077), (341, 11107), (375, 11245), (378, 11257), (401, 11317), (406, 11338), (407, 11341), (419, 11392), (424, 11419), (425, 11422), (430, 11440), (443, 11488), (449, 11533), (459, 11557), (461, 11572), (468, 11599), (471, 11605), (500, 11704), (506, 11731), (507, 11737), (523, 11758), (595, 11866), (597, 11872), (600, 11893), (618, 12022), (622, 12043), (623, 12046), (625, 12052), (631, 12076), (637, 12112), (639, 12118), (672, 12259), (685, 12325), (690, 12349), (700, 12376), (715, 12412), (719, 12427), (756, 12649), (820, 13030), (905, 13396), (910, 13420), (918, 13471), (921, 13492), (929, 13546), (934, 13570), (941, 13612), (948, 13678), (949, 13696), (960, 13783), (966, 13810), (971, 13828), (972, 13831),

Gene: Malvina_18 Start: 10516, Stop: 15633, Start Num: 22

Candidate Starts for Malvina_18:

(19, 10495), (Start: 22 @10516 has 37 MA's), (25, 10543), (36, 10672), (45, 10756), (52, 10795), (58, 10819), (74, 10876), (79, 10903), (80, 10909), (99, 10999), (113, 11059), (114, 11062), (128, 11128), (138, 11176), (158, 11242), (161, 11263), (230, 11602), (243, 11656), (244, 11659), (263, 11761), (272, 11818), (273, 11824), (274, 11827), (275, 11833), (278, 11854), (289, 11911), (298, 11956), (320, 12058), (322, 12076), (334, 12145), (344, 12193), (357, 12250), (362, 12274), (364, 12280), (394, 12400), (398, 12415), (404, 12454), (418, 12529), (420, 12550), (428, 12577), (429, 12583), (440, 12622), (441, 12625), (455, 12733), (466, 12805), (482, 12856), (483, 12859), (506, 12964), (518, 13009), (523, 13033), (541, 13114), (548, 13141), (549, 13144), (557, 13195), (569, 13243), (570, 13249), (577, 13294), (597, 13411), (598, 13417), (606, 13474), (613, 13528), (617, 13549), (618, 13561), (622, 13582), (623, 13585), (637, 13651), (639, 13657), (666, 13792), (668, 13801), (678, 13858), (683, 13885), (713, 13978), (756, 14206), (759, 14227), (761, 14236), (787, 14410), (796, 14440), (798, 14461), (833, 14653), (858, 14743), (881, 14890), (884, 14911), (900, 15019), (909, 15085), (918, 15136), (929, 15208), (937, 15247), (938, 15250), (941, 15277), (946, 15310), (948, 15343), (950, 15364), (953, 15391), (970, 15487), (980, 15541), (982, 15547),

Gene: Margaret_19 Start: 10311, Stop: 14516, Start Num: 87

Candidate Starts for Margaret_19:

(Start: 87 @10311 has 7 MA's), (Start: 95 @10338 has 1 MA's), (163, 10626), (167, 10647), (169, 10653), (174, 10686), (179, 10704), (183, 10728), (198, 10818), (200, 10827), (202, 10836), (209, 10869), (215, 10896), (218, 10905), (223, 10929), (258, 11082), (269, 11145), (270, 11160), (277, 11196), (282, 11226), (285, 11247), (295, 11289), (315, 11370), (328, 11445), (331, 11454), (333, 11475), (362, 11622), (398, 11763), (402, 11784), (408, 11817), (410, 11835), (414, 11856), (418, 11877), (420, 11898), (435, 11949), (436, 11952), (437, 11955), (441, 11973), (469, 12054), (480, 12084), (492, 12135), (504, 12189), (510, 12216), (519, 12249), (530, 12309), (548, 12378), (549, 12381), (588, 12483), (590, 12489), (596, 12513), (600, 12537), (601, 12540), (613, 12633), (618, 12666), (622, 12687), (625, 12696), (627, 12705), (629, 12711), (670, 12864), (682, 12933), (683, 12939), (693, 12975), (731, 13104), (756, 13245), (760, 13269), (768, 13314), (793, 13467), (794, 13470), (827, 13659), (833, 13689), (893, 13866), (902, 13938), (905, 13962), (908, 13974), (912, 13998), (916, 14010), (928, 14094), (929, 14100), (938, 14142), (941, 14163), (946, 14196), (948, 14229), (950, 14250), (953, 14277), (956, 14301), (961, 14337), (974, 14385), (989, 14487),

Gene: Mayweather_17 Start: 10006, Stop: 15090, Start Num: 22

Candidate Starts for Mayweather_17:

(Start: 22 @10006 has 37 MA's), (36, 10162), (54, 10291), (61, 10321), (78, 10390), (81, 10402), (83, 10417), (88, 10438), (90, 10447), (99, 10489), (102, 10498), (111, 10534), (115, 10558), (128, 10618), (139, 10672), (148, 10711), (151, 10717), (158, 10732), (161, 10753), (192, 10924), (205, 10987), (216, 11032), (236, 11113), (266, 11272), (271, 11305), (274, 11317), (278, 11344), (289, 11401), (295, 11431), (297, 11443), (319, 11545), (320, 11548), (334, 11635), (344, 11683), (371, 11797), (394, 11890), (398, 11905), (402, 11926), (408, 11959), (415, 12001), (420, 12040), (427, 12064), (428, 12067), (429, 12073), (435, 12091), (441, 12115), (454, 12220), (464, 12268), (483, 12328), (484, 12331), (492, 12367), (506, 12433), (510, 12448), (518, 12478), (522, 12499), (523, 12502), (530, 12541), (533, 12562), (541, 12583), (547, 12607), (549, 12613), (572, 12739), (579, 12769), (583, 12808), (591, 12856), (596, 12877), (597, 12880), (607, 12952), (613, 12997), (618, 13030), (622, 13051), (634, 13105), (645, 13180), (668, 13264), (683, 13351), (756, 13669), (761, 13699), (782, 13837), (793, 13888), (798, 13918), (827, 14071), (833, 14101), (872, 14311), (874, 14320), (875, 14326), (881, 14362), (900, 14479), (901, 14485), (905, 14527), (909, 14545), (929, 14668), (934, 14692), (937, 14707), (941, 14737), (945, 14764), (946, 14770), (948, 14803), (955, 14872), (956, 14875), (961, 14911), (978, 14983), (981, 15001),

Gene: McDazzle_15 Start: 10003, Stop: 14937, Start Num: 36

Candidate Starts for McDazzle_15:

(Start: 22 @9847 has 37 MA's), (36, 10003), (50, 10108), (54, 10132), (66, 10183), (78, 10231), (88, 10279), (90, 10288), (99, 10330), (101, 10336), (102, 10339), (111, 10375), (115, 10399), (121, 10426), (139, 10513), (148, 10552), (151, 10558), (158, 10573), (161, 10594), (172, 10648), (192, 10765), (205, 10828), (216, 10873), (225, 10912), (236, 10954), (266, 11116), (268, 11125), (271, 11149), (274, 11161), (278, 11188), (281, 11200), (289, 11245), (295, 11275), (297, 11287), (319, 11389), (320, 11392), (334, 11479), (338, 11506), (354, 11566), (360, 11596), (365, 11617), (371, 11641), (383, 11692), (394, 11734), (398, 11749), (400, 11758), (402, 11770), (408, 11803), (415, 11845), (426, 11905), (427, 11908), (428, 11911), (435, 11935), (441, 11959), (454, 12064), (464, 12112), (483, 12172), (484, 12175), (492, 12211), (506, 12277), (510, 12292), (515, 12307), (518, 12322), (522, 12343), (523, 12346), (530, 12385), (532, 12400), (533, 12406), (541, 12427), (547, 12451), (549, 12457), (572, 12583), (579, 12613), (583, 12652), (591, 12700), (596, 12721), (597, 12724), (598, 12730), (607, 12796), (613, 12841), (618, 12874), (622, 12895), (634, 12949), (666, 13099), (668, 13108), (683, 13195), (731, 13372), (756, 13513), (761, 13543), (782, 13681), (798, 13762), (827, 13915), (833, 13945), (872, 14167), (874, 14176), (875, 14182), (881, 14209), (900, 14326), (901, 14332), (905, 14374), (909, 14392), (929, 14515), (934, 14539), (937, 14554), (941, 14584), (945, 14611), (946, 14617), (948, 14650), (955, 14719), (956, 14722), (961, 14758), (978, 14830), (981, 14848),

Gene: Melba_17 Start: 10274, Stop: 15796, Start Num: 10

Candidate Starts for Melba_17:

(Start: 10 @10274 has 26 MA's), (12, 10289), (Start: 13 @10295 has 1 MA's), (Start: 15 @10325 has 1 MA's), (16, 10334), (17, 10337), (18, 10379), (29, 10490), (31, 10511), (Start: 40 @10631 has 14 MA's), (48, 10673), (62, 10739), (66, 10757), (72, 10778), (73, 10781), (77, 10799), (82, 10823), (100, 10907), (101, 10910), (111, 10949), (113, 10964), (115, 10973), (156, 11141), (161, 11168), (185, 11285), (219, 11456), (225, 11486), (266, 11690), (274, 11735), (278, 11762), (281, 11774), (298, 11864), (308, 11909), (315, 11936), (320, 11966), (334, 12053), (335, 12056), (342, 12095), (361, 12179), (371, 12215), (380, 12257), (392, 12302), (394, 12308), (397, 12320), (398, 12323), (408, 12377), (414, 12416), (418, 12437), (419, 12440), (420, 12458), (422, 12467), (428, 12485), (434, 12506), (436, 12512), (441, 12533), (446, 12560), (454, 12638), (503, 12827), (506, 12851), (509, 12863), (510, 12866), (515, 12881), (518, 12896), (519, 12899), (529, 12950), (548, 13031), (549, 13034), (569, 13067), (575, 13097), (580, 13121), (634, 13454), (642, 13502), (646, 13547), (647, 13550), (653, 13565), (663, 13610), (664, 13619), (666, 13628), (676, 13679), (689, 13751), (696, 13769), (703, 13790), (727, 13889), (728, 13892), (731, 13925), (740, 13991), (742, 14009), (745, 14024), (751, 14057), (762, 14108), (770, 14159), (776, 14207), (805, 14402), (806, 14405), (821, 14477), (822, 14480), (837, 14546), (838, 14549), (841, 14567), (849, 14627), (856, 14684), (857, 14702), (864, 14783), (865, 14786), (866, 14801), (890, 15014), (900, 15080), (907, 15134), (909, 15146), (910, 15152), (929, 15275), (934, 15299), (938, 15317), (941, 15341), (942, 15347), (945, 15368), (948, 15407), (969, 15548), (973, 15560), (982, 15611), (986, 15629), (999, 15779),

Gene: Mellie_16 Start: 10014, Stop: 15557, Start Num: 10

Candidate Starts for Mellie_16:

(Start: 10 @10014 has 26 MA's), (12, 10029), (Start: 13 @10035 has 1 MA's), (Start: 15 @10065 has 1 MA's), (16, 10074), (17, 10077), (18, 10119), (29, 10230), (31, 10251), (62, 10479), (66, 10497), (70, 10512), (72, 10518), (73, 10521), (77, 10539), (82, 10563), (100, 10647), (102, 10653), (111, 10689), (113, 10704), (115, 10713), (156, 10881), (161, 10908), (185, 11025), (219, 11196), (225, 11226), (266, 11430), (274, 11475), (278, 11502), (281, 11514), (298, 11604), (315, 11676), (320, 11706), (334, 11793), (335, 11796), (342, 11835), (371, 11955), (380, 11997), (392, 12042), (394, 12048), (397, 12060), (398, 12063), (408, 12117), (414, 12156), (418, 12177), (419, 12180), (420, 12198), (434, 12246), (436, 12252), (441, 12273), (446, 12300), (453, 12372), (483, 12507), (503, 12588), (506, 12612), (510, 12627), (518, 12657), (519, 12660), (529, 12711), (548, 12792), (549, 12795), (569, 12828), (575, 12858), (580, 12882), (587, 12948), (634, 13215), (638, 13233), (642, 13263), (646, 13308), (647, 13311), (653, 13326), (655, 13335), (663, 13371), (664, 13380), (666, 13389), (676, 13440), (689, 13512), (696, 13530), (703, 13551), (727, 13650), (728, 13653), (731, 13686),

(740, 13752), (742, 13770), (745, 13785), (751, 13818), (762, 13869), (770, 13920), (805, 14163), (806, 14166), (821, 14238), (822, 14241), (837, 14307), (838, 14310), (841, 14328), (849, 14388), (856, 14445), (857, 14463), (864, 14544), (865, 14547), (866, 14562), (890, 14775), (900, 14841), (901, 14847), (909, 14907), (910, 14913), (929, 15036), (934, 15060), (938, 15078), (941, 15102), (942, 15108), (945, 15129), (948, 15168), (969, 15309), (973, 15321), (982, 15372), (986, 15390), (999, 15540),

Gene: MintFen_17 Start: 10274, Stop: 15796, Start Num: 10

Candidate Starts for MintFen_17:

(Start: 10 @10274 has 26 MA's), (12, 10289), (Start: 13 @10295 has 1 MA's), (Start: 15 @10325 has 1 MA's), (16, 10334), (17, 10337), (18, 10379), (29, 10490), (31, 10511), (Start: 40 @10631 has 14 MA's), (48, 10673), (62, 10739), (66, 10757), (72, 10778), (73, 10781), (77, 10799), (82, 10823), (100, 10907), (101, 10910), (111, 10949), (113, 10964), (115, 10973), (156, 11141), (161, 11168), (185, 11285), (219, 11456), (225, 11486), (266, 11690), (274, 11735), (278, 11762), (281, 11774), (298, 11864), (308, 11909), (315, 11936), (320, 11966), (334, 12053), (335, 12056), (342, 12095), (361, 12179), (371, 12215), (380, 12257), (392, 12302), (394, 12308), (397, 12320), (398, 12323), (408, 12377), (414, 12416), (418, 12437), (419, 12440), (420, 12458), (422, 12467), (428, 12485), (434, 12506), (436, 12512), (441, 12533), (446, 12560), (454, 12638), (503, 12827), (506, 12851), (509, 12863), (510, 12866), (515, 12881), (518, 12896), (519, 12899), (529, 12950), (548, 13031), (549, 13034), (569, 13067), (575, 13097), (580, 13121), (634, 13454), (642, 13502), (646, 13547), (647, 13550), (653, 13565), (663, 13610), (664, 13619), (666, 13628), (676, 13679), (689, 13751), (696, 13769), (703, 13790), (727, 13889), (728, 13892), (731, 13925), (740, 13991), (742, 14009), (745, 14024), (751, 14057), (762, 14108), (770, 14159), (776, 14207), (805, 14402), (806, 14405), (821, 14477), (822, 14480), (837, 14546), (838, 14549), (841, 14567), (849, 14627), (856, 14684), (857, 14702), (864, 14783), (865, 14786), (866, 14801), (890, 15014), (900, 15080), (907, 15134), (909, 15146), (910, 15152), (929, 15275), (934, 15299), (938, 15317), (941, 15341), (942, 15347), (945, 15368), (948, 15407), (969, 15548), (973, 15560), (982, 15611), (986, 15629), (999, 15779),

Gene: ModicumRichard_17 Start: 10946, Stop: 15646, Start Num: 40

Candidate Starts for ModicumRichard_17:

(Start: 40 @10946 has 14 MA's), (75, 11105), (103, 11228), (132, 11363), (153, 11450), (155, 11453), (161, 11480), (166, 11507), (168, 11513), (169, 11516), (210, 11735), (217, 11762), (293, 12137), (301, 12170), (303, 12179), (309, 12209), (312, 12221), (318, 12257), (328, 12302), (332, 12323), (333, 12332), (335, 12347), (348, 12395), (353, 12416), (372, 12491), (374, 12503), (381, 12536), (382, 12539), (386, 12557), (387, 12563), (396, 12590), (398, 12599), (399, 12602), (407, 12644), (409, 12653), (417, 12701), (430, 12764), (455, 12902), (457, 12911), (481, 12998), (485, 13010), (489, 13031), (490, 13037), (498, 13064), (499, 13067), (507, 13115), (510, 13124), (522, 13166), (525, 13178), (543, 13220), (548, 13241), (551, 13253), (574, 13295), (622, 13565), (624, 13571), (633, 13607), (649, 13694), (668, 13772), (677, 13820), (688, 13877), (692, 13883), (708, 13931), (718, 13967), (723, 13991), (743, 14114), (757, 14186), (766, 14225), (801, 14432), (856, 14711), (865, 14789), (915, 15095), (920, 15140), (934, 15218), (935, 15224), (938, 15236), (943, 15281), (944, 15284), (963, 15458), (990, 15617),

Gene: Morgana_17 Start: 10951, Stop: 15636, Start Num: 40

Candidate Starts for Morgana_17:

(Start: 40 @10951 has 14 MA's), (75, 11110), (103, 11236), (153, 11440), (155, 11443), (161, 11470), (166, 11497), (168, 11503), (169, 11506), (210, 11725), (217, 11752), (293, 12127), (301, 12160), (303, 12169), (309, 12199), (312, 12211), (318, 12247), (328, 12292), (332, 12313), (333, 12322), (335, 12337), (348, 12385), (353, 12406), (367, 12463), (372, 12481), (374, 12493), (381, 12526), (386, 12547), (387, 12553), (398, 12589), (399, 12592), (407, 12634), (409, 12643), (417, 12691), (430, 12754), (457, 12901), (481, 12988), (485, 13000), (489, 13021), (490, 13027), (498, 13054), (499, 13057), (507, 13105), (510, 13114), (522, 13156), (525, 13168), (543, 13210), (548, 13231), (551, 13243), (574, 13285), (598, 13414), (624, 13561), (648, 13681), (649, 13684), (652, 13690),

(668, 13762), (677, 13810), (688, 13867), (708, 13921), (718, 13957), (723, 13981), (757, 14176), (766, 14215), (801, 14422), (856, 14701), (865, 14779), (906, 15037), (915, 15085), (920, 15130), (934, 15208), (935, 15214), (938, 15226), (943, 15271), (944, 15274), (963, 15448), (990, 15607),

Gene: Morrissey_17 Start: 10161, Stop: 15197, Start Num: 39

Candidate Starts for Morrissey_17:

(Start: 39 @10161 has 7 MA's), (45, 10200), (56, 10257), (69, 10305), (76, 10335), (102, 10452), (109, 10482), (140, 10629), (165, 10725), (188, 10848), (196, 10893), (226, 11016), (233, 11046), (239, 11067), (241, 11076), (245, 11094), (247, 11100), (249, 11121), (259, 11175), (261, 11184), (264, 11208), (287, 11349), (302, 11427), (330, 11574), (343, 11652), (365, 11751), (371, 11772), (373, 11778), (376, 11793), (389, 11847), (394, 11862), (395, 11865), (402, 11898), (403, 11907), (409, 11937), (411, 11958), (416, 11976), (418, 11991), (446, 12111), (449, 12144), (453, 12183), (464, 12258), (466, 12264), (503, 12399), (508, 12432), (509, 12435), (510, 12438), (514, 12447), (516, 12459), (522, 12495), (528, 12525), (535, 12564), (547, 12606), (548, 12609), (549, 12612), (554, 12633), (557, 12663), (572, 12738), (574, 12744), (581, 12795), (584, 12819), (600, 12900), (613, 12996), (617, 13017), (618, 13029), (622, 13050), (623, 13053), (631, 13083), (637, 13119), (657, 13209), (662, 13233), (672, 13278), (678, 13308), (680, 13326), (685, 13344), (688, 13365), (690, 13368), (754, 13623), (756, 13632), (794, 13866), (816, 13998), (818, 14004), (820, 14022), (831, 14064), (851, 14181), (882, 14433), (886, 14460), (901, 14565), (905, 14607), (909, 14625), (910, 14631), (929, 14757), (934, 14781), (939, 14805), (941, 14823), (942, 14829), (948, 14889), (965, 15018), (966, 15021), (971, 15039), (972, 15042), (984, 15099),

Gene: MunkgeeRoachy_16 Start: 9677, Stop: 14815, Start Num: 22

Candidate Starts for MunkgeeRoachy_16:

(19, 9653), (Start: 22 @9677 has 37 MA's), (25, 9704), (36, 9833), (43, 9908), (78, 10061), (79, 10064), (99, 10160), (102, 10169), (108, 10199), (111, 10205), (113, 10220), (114, 10223), (119, 10244), (135, 10316), (138, 10337), (158, 10403), (161, 10424), (185, 10541), (216, 10703), (225, 10742), (243, 10817), (271, 10976), (274, 10988), (278, 11015), (285, 11060), (289, 11072), (313, 11180), (316, 11201), (321, 11231), (327, 11255), (329, 11267), (334, 11306), (340, 11339), (364, 11441), (365, 11444), (370, 11462), (371, 11468), (394, 11561), (398, 11576), (404, 11615), (414, 11669), (420, 11711), (432, 11753), (440, 11783), (441, 11786), (455, 11894), (456, 11897), (462, 11948), (484, 12023), (504, 12113), (506, 12125), (518, 12170), (522, 12191), (523, 12194), (524, 12197), (540, 12272), (549, 12305), (554, 12326), (557, 12356), (569, 12404), (570, 12410), (574, 12437), (597, 12572), (613, 12689), (618, 12722), (622, 12743), (623, 12746), (637, 12812), (639, 12818), (641, 12833), (666, 12953), (668, 12962), (683, 13046), (756, 13367), (792, 13586), (798, 13622), (839, 13835), (874, 14027), (881, 14075), (884, 14096), (900, 14204), (909, 14270), (912, 14288), (929, 14393), (935, 14423), (937, 14432), (941, 14462), (948, 14528), (953, 14576), (961, 14636), (980, 14723), (989, 14786),

Gene: Murp_17 Start: 10264, Stop: 15864, Start Num: 10

Candidate Starts for Murp_17:

(Start: 10 @10264 has 26 MA's), (12, 10279), (Start: 13 @10285 has 1 MA's), (Start: 15 @10315 has 1 MA's), (16, 10324), (17, 10327), (18, 10369), (29, 10480), (31, 10501), (Start: 40 @10621 has 14 MA's), (49, 10669), (62, 10729), (66, 10747), (72, 10768), (73, 10771), (77, 10789), (100, 10897), (102, 10903), (111, 10939), (113, 10954), (115, 10963), (156, 11131), (161, 11158), (185, 11275), (219, 11446), (225, 11476), (248, 11572), (266, 11680), (274, 11725), (278, 11752), (281, 11764), (298, 11854), (308, 11899), (315, 11926), (320, 11956), (334, 12043), (342, 12085), (344, 12091), (371, 12205), (380, 12247), (392, 12292), (394, 12298), (398, 12313), (408, 12367), (414, 12406), (418, 12427), (419, 12430), (420, 12448), (422, 12457), (428, 12475), (434, 12496), (436, 12502), (441, 12523), (446, 12550), (451, 12598), (454, 12628), (500, 12802), (506, 12841), (510, 12856), (518, 12886), (519, 12889), (529, 12940), (548, 13021), (549, 13024), (569, 13057), (575, 13087), (580, 13111), (586, 13165), (587, 13177), (618, 13366), (634, 13444), (640, 13486), (646, 13537), (647, 13540), (653, 13555), (656, 13567), (663, 13600), (664, 13609), (685, 13723), (696, 13777), (697,

13795), (720, 13879), (721, 13885), (725, 13921), (773, 14245), (778, 14293), (780, 14305), (790, 14368), (800, 14437), (803, 14467), (804, 14470), (805, 14479), (806, 14482), (814, 14515), (821, 14554), (822, 14557), (837, 14623), (838, 14626), (841, 14644), (849, 14704), (856, 14761), (857, 14779), (864, 14860), (866, 14878), (890, 15079), (900, 15145), (909, 15211), (910, 15217), (929, 15343), (934, 15367), (938, 15385), (941, 15409), (942, 15415), (945, 15436), (948, 15475), (969, 15616), (982, 15679), (986, 15697), (991, 15757), (999, 15850),

Gene: NaLuna_17 Start: 10605, Stop: 15728, Start Num: 20

Candidate Starts for NaLuna_17:

(Start: 20 @10605 has 13 MA's), (Start: 22 @10614 has 37 MA's), (51, 10887), (53, 10896), (60, 10926), (90, 11055), (115, 11166), (127, 11223), (161, 11361), (172, 11415), (178, 11448), (219, 11649), (225, 11679), (244, 11757), (248, 11775), (251, 11796), (266, 11880), (271, 11913), (273, 11922), (275, 11931), (281, 11964), (282, 11976), (286, 12000), (296, 12045), (298, 12054), (307, 12090), (308, 12099), (315, 12126), (316, 12138), (320, 12156), (327, 12192), (351, 12315), (359, 12357), (392, 12492), (393, 12495), (394, 12498), (398, 12513), (408, 12567), (414, 12606), (431, 12687), (436, 12702), (441, 12723), (444, 12738), (446, 12750), (450, 12786), (453, 12822), (494, 12984), (526, 13041), (536, 13053), (537, 13056), (549, 13089), (553, 13107), (568, 13182), (569, 13188), (570, 13194), (572, 13215), (573, 13218), (574, 13221), (583, 13284), (588, 13320), (592, 13335), (598, 13359), (600, 13374), (601, 13377), (609, 13437), (626, 13536), (634, 13578), (645, 13656), (666, 13725), (669, 13743), (690, 13851), (701, 13878), (702, 13881), (716, 13920), (717, 13923), (718, 13932), (728, 13980), (739, 14067), (744, 14091), (755, 14151), (767, 14211), (779, 14289), (789, 14337), (793, 14349), (800, 14409), (805, 14451), (824, 14532), (830, 14559), (834, 14577), (840, 14607), (846, 14655), (847, 14661), (850, 14670), (855, 14718), (859, 14790), (865, 14829), (870, 14871), (896, 15057), (897, 15060), (902, 15117), (903, 15126), (904, 15138), (909, 15159), (944, 15372), (948, 15411), (956, 15480), (964, 15534), (981, 15606), (993, 15687), (995, 15711),

Gene: Nibbles_18 Start: 10619, Stop: 15748, Start Num: 22

Candidate Starts for Nibbles_18:

(19, 10598), (Start: 22 @10619 has 37 MA's), (25, 10646), (36, 10775), (48, 10871), (58, 10922), (74, 10979), (80, 11012), (81, 11015), (99, 11102), (103, 11114), (113, 11162), (114, 11165), (115, 11171), (126, 11225), (128, 11231), (138, 11279), (158, 11345), (161, 11366), (243, 11759), (244, 11762), (263, 11864), (274, 11930), (275, 11936), (278, 11957), (320, 12161), (322, 12179), (324, 12185), (327, 12197), (329, 12209), (334, 12248), (336, 12260), (344, 12296), (357, 12353), (362, 12377), (394, 12503), (398, 12518), (404, 12557), (418, 12632), (423, 12665), (428, 12680), (429, 12686), (431, 12692), (441, 12728), (455, 12836), (466, 12908), (483, 12962), (518, 13112), (523, 13136), (533, 13196), (538, 13208), (540, 13214), (547, 13241), (548, 13244), (549, 13247), (568, 13340), (569, 13346), (577, 13397), (586, 13466), (593, 13499), (597, 13514), (598, 13520), (606, 13577), (608, 13589), (612, 13628), (613, 13631), (617, 13652), (618, 13664), (622, 13685), (623, 13688), (632, 13727), (634, 13739), (637, 13754), (666, 13895), (683, 13991), (703, 14057), (710, 14078), (713, 14084), (756, 14321), (761, 14351), (768, 14390), (787, 14525), (796, 14555), (798, 14576), (827, 14735), (833, 14768), (874, 14981), (880, 14999), (881, 15005), (900, 15134), (909, 15200), (918, 15251), (929, 15323), (937, 15362), (941, 15392), (946, 15425), (948, 15458), (956, 15530), (970, 15602), (980, 15656), (982, 15662), (989, 15719),

Gene: Nina_17 Start: 10662, Stop: 15809, Start Num: 22

Candidate Starts for Nina_17:

(19, 10638), (Start: 22 @10662 has 37 MA's), (25, 10689), (36, 10818), (45, 10911), (46, 10914), (65, 11004), (72, 11028), (82, 11073), (83, 11082), (99, 11154), (101, 11160), (102, 11163), (107, 11190), (110, 11196), (113, 11214), (114, 11217), (119, 11238), (135, 11310), (138, 11331), (158, 11397), (161, 11418), (185, 11535), (216, 11697), (225, 11736), (243, 11811), (271, 11970), (274, 11982), (278, 12009), (285, 12054), (289, 12066), (308, 12156), (313, 12174), (316, 12195), (321, 12225), (327, 12249), (329, 12261), (334, 12300), (340, 12333), (364, 12435), (365, 12438), (371, 12462),

(394, 12555), (398, 12570), (404, 12609), (414, 12663), (420, 12705), (423, 12717), (432, 12747), (440, 12777), (441, 12780), (455, 12888), (456, 12891), (462, 12942), (463, 12948), (484, 13017), (504, 13107), (506, 13119), (518, 13164), (522, 13185), (523, 13188), (524, 13191), (540, 13266), (549, 13299), (554, 13320), (557, 13350), (569, 13398), (570, 13404), (574, 13431), (597, 13566), (613, 13683), (618, 13716), (622, 13737), (637, 13806), (639, 13812), (641, 13827), (666, 13947), (668, 13956), (683, 14040), (756, 14361), (759, 14382), (792, 14580), (798, 14616), (839, 14829), (874, 15021), (881, 15069), (884, 15090), (900, 15198), (909, 15264), (912, 15282), (929, 15387), (935, 15417), (937, 15426), (941, 15456), (948, 15522), (953, 15570), (961, 15630), (980, 15717), (989, 15780),

Gene: Nodigi_18 Start: 10594, Stop: 14802, Start Num: 87

Candidate Starts for Nodigi_18:

(Start: 87 @10594 has 7 MA's), (Start: 95 @10621 has 1 MA's), (167, 10930), (179, 10987), (183, 11011), (189, 11056), (198, 11101), (202, 11119), (205, 11134), (209, 11152), (211, 11161), (224, 11215), (238, 11272), (255, 11353), (262, 11401), (269, 11440), (270, 11455), (272, 11464), (277, 11491), (282, 11521), (285, 11542), (315, 11665), (327, 11731), (336, 11794), (355, 11881), (371, 11950), (398, 12058), (402, 12079), (408, 12112), (410, 12130), (413, 12148), (418, 12172), (422, 12202), (436, 12247), (437, 12250), (441, 12268), (480, 12379), (483, 12391), (484, 12394), (492, 12430), (503, 12472), (504, 12484), (510, 12511), (519, 12544), (532, 12619), (548, 12673), (549, 12676), (553, 12694), (583, 12739), (590, 12784), (600, 12832), (601, 12835), (618, 12961), (625, 12991), (627, 13000), (629, 13006), (670, 13159), (678, 13204), (682, 13228), (683, 13234), (693, 13270), (712, 13327), (724, 13378), (732, 13423), (756, 13561), (761, 13591), (793, 13783), (827, 13960), (893, 14152), (902, 14224), (908, 14260), (912, 14284), (916, 14296), (921, 14338), (929, 14386), (941, 14449), (945, 14476), (946, 14482), (948, 14515), (950, 14536), (953, 14563), (956, 14587), (961, 14623), (967, 14650), (970, 14659), (974, 14671), (989, 14773),

Gene: ObLaDi_17 Start: 10934, Stop: 15625, Start Num: 40

Candidate Starts for ObLaDi_17:

(Start: 40 @10934 has 14 MA's), (75, 11093), (103, 11216), (132, 11351), (153, 11438), (155, 11441), (161, 11468), (166, 11495), (168, 11501), (169, 11504), (210, 11723), (217, 11750), (293, 12125), (301, 12158), (303, 12167), (309, 12197), (312, 12209), (318, 12245), (328, 12290), (332, 12311), (333, 12320), (335, 12335), (348, 12383), (353, 12404), (372, 12479), (374, 12491), (381, 12524), (386, 12545), (387, 12551), (396, 12578), (398, 12587), (399, 12590), (407, 12632), (409, 12641), (417, 12689), (430, 12752), (455, 12890), (457, 12899), (470, 12956), (481, 12986), (485, 12998), (489, 13019), (490, 13025), (498, 13052), (499, 13055), (507, 13103), (510, 13112), (522, 13154), (525, 13166), (543, 13208), (548, 13229), (551, 13241), (574, 13283), (598, 13412), (614, 13511), (624, 13559), (633, 13595), (648, 13679), (649, 13682), (652, 13688), (668, 13760), (688, 13865), (692, 13871), (708, 13919), (718, 13955), (723, 13979), (757, 14174), (758, 14186), (801, 14411), (856, 14690), (865, 14768), (906, 15026), (915, 15074), (920, 15119), (934, 15197), (935, 15203), (938, 15215), (943, 15260), (944, 15263), (963, 15437), (990, 15596),

Gene: Obliviate_16 Start: 10043, Stop: 15586, Start Num: 10

Candidate Starts for Obliviate_16:

(Start: 10 @10043 has 26 MA's), (12, 10058), (Start: 13 @10064 has 1 MA's), (Start: 15 @10094 has 1 MA's), (16, 10103), (17, 10106), (18, 10148), (29, 10259), (31, 10280), (62, 10508), (66, 10526), (70, 10541), (72, 10547), (73, 10550), (77, 10568), (82, 10592), (100, 10676), (102, 10682), (111, 10718), (113, 10733), (115, 10742), (156, 10910), (161, 10937), (185, 11054), (192, 11108), (219, 11225), (225, 11255), (266, 11459), (274, 11504), (278, 11531), (281, 11543), (298, 11633), (308, 11678), (315, 11705), (320, 11735), (334, 11822), (335, 11825), (342, 11864), (371, 11984), (380, 12026), (392, 12071), (394, 12077), (397, 12089), (398, 12092), (408, 12146), (414, 12185), (418, 12206), (419, 12209), (420, 12227), (428, 12254), (434, 12275), (436, 12281), (441, 12302), (446, 12329), (453, 12401), (483, 12536), (503, 12617), (506, 12641), (510, 12656), (518, 12686), (519, 12689), (529, 12740), (548, 12821), (549, 12824), (569, 12857), (575, 12887), (580, 12911), (587, 12977),

(634, 13244), (638, 13262), (642, 13292), (646, 13337), (647, 13340), (653, 13355), (655, 13364), (663, 13400), (664, 13409), (666, 13418), (676, 13469), (689, 13541), (696, 13559), (703, 13580), (727, 13679), (728, 13682), (731, 13715), (740, 13781), (742, 13799), (745, 13814), (751, 13847), (762, 13898), (770, 13949), (805, 14192), (806, 14195), (821, 14267), (822, 14270), (837, 14336), (838, 14339), (841, 14357), (849, 14417), (856, 14474), (857, 14492), (864, 14573), (865, 14576), (866, 14591), (883, 14750), (890, 14804), (900, 14870), (901, 14876), (909, 14936), (910, 14942), (918, 14993), (929, 15065), (934, 15089), (938, 15107), (941, 15131), (942, 15137), (945, 15158), (948, 15197), (969, 15338), (973, 15350), (982, 15401), (986, 15419), (999, 15569),

Gene: Opie_17 Start: 10940, Stop: 16069, Start Num: 20

Candidate Starts for Opie_17:

(Start: 20 @10940 has 13 MA's), (Start: 22 @10949 has 37 MA's), (51, 11222), (53, 11231), (77, 11327), (85, 11369), (90, 11390), (112, 11483), (115, 11501), (161, 11696), (190, 11855), (216, 11975), (217, 11978), (225, 12014), (244, 12092), (266, 12215), (271, 12248), (273, 12257), (275, 12266), (281, 12299), (282, 12311), (286, 12335), (296, 12380), (307, 12425), (315, 12461), (316, 12473), (320, 12491), (327, 12527), (351, 12650), (359, 12692), (392, 12827), (393, 12830), (394, 12833), (398, 12848), (408, 12902), (414, 12941), (431, 13022), (436, 13037), (441, 13058), (444, 13073), (446, 13085), (450, 13121), (453, 13157), (494, 13319), (513, 13352), (526, 13376), (536, 13388), (537, 13391), (549, 13424), (553, 13442), (569, 13523), (570, 13529), (572, 13550), (573, 13553), (574, 13556), (588, 13655), (592, 13670), (598, 13694), (600, 13709), (601, 13712), (602, 13718), (609, 13772), (626, 13871), (634, 13913), (640, 13946), (645, 13991), (654, 14015), (666, 14060), (669, 14078), (690, 14186), (702, 14216), (716, 14255), (717, 14258), (718, 14267), (763, 14516), (767, 14540), (789, 14684), (796, 14708), (800, 14759), (824, 14876), (830, 14903), (834, 14921), (846, 14999), (847, 15005), (850, 15014), (852, 15041), (859, 15134), (865, 15173), (870, 15215), (889, 15368), (896, 15401), (897, 15404), (902, 15461), (903, 15470), (904, 15482), (909, 15503), (913, 15524), (944, 15716), (948, 15755), (955, 15821), (956, 15824), (964, 15878), (993, 16031),

Gene: Orla_18 Start: 10598, Stop: 14806, Start Num: 87

Candidate Starts for Orla_18:

(Start: 87 @10598 has 7 MA's), (Start: 95 @10625 has 1 MA's), (167, 10934), (179, 10991), (183, 11015), (189, 11060), (198, 11105), (202, 11123), (205, 11138), (209, 11156), (211, 11165), (224, 11219), (238, 11276), (255, 11357), (262, 11405), (269, 11444), (270, 11459), (272, 11468), (277, 11495), (282, 11525), (285, 11546), (315, 11669), (327, 11735), (336, 11798), (355, 11885), (371, 11954), (398, 12062), (402, 12083), (408, 12116), (410, 12134), (413, 12152), (418, 12176), (422, 12206), (436, 12251), (437, 12254), (441, 12272), (480, 12383), (483, 12395), (492, 12434), (503, 12476), (504, 12488), (506, 12500), (510, 12515), (519, 12548), (532, 12623), (548, 12677), (549, 12680), (553, 12698), (583, 12743), (588, 12782), (590, 12788), (596, 12812), (599, 12833), (600, 12836), (601, 12839), (618, 12965), (622, 12986), (625, 12995), (627, 13004), (629, 13010), (670, 13163), (678, 13208), (682, 13232), (683, 13238), (693, 13274), (704, 13307), (712, 13331), (724, 13382), (732, 13427), (756, 13565), (761, 13595), (793, 13787), (827, 13964), (893, 14156), (902, 14228), (908, 14264), (912, 14288), (916, 14300), (921, 14342), (929, 14390), (941, 14453), (945, 14480), (946, 14486), (948, 14519), (950, 14540), (953, 14567), (956, 14591), (961, 14627), (967, 14654), (970, 14663), (974, 14675), (989, 14777),

Gene: PCoral7_17 Start: 10271, Stop: 15886, Start Num: 10

Candidate Starts for PCoral7_17:

(Start: 9 @10235 has 1 MA's), (Start: 10 @10271 has 26 MA's), (Start: 13 @10292 has 1 MA's), (16, 10331), (18, 10376), (27, 10466), (28, 10475), (29, 10487), (31, 10508), (35, 10565), (41, 10637), (45, 10658), (53, 10700), (54, 10703), (60, 10730), (65, 10751), (66, 10754), (72, 10775), (77, 10796), (Start: 87 @10847 has 7 MA's), (88, 10850), (102, 10910), (141, 11093), (161, 11165), (194, 11351), (219, 11453), (222, 11468), (225, 11483), (240, 11540), (274, 11732), (296, 11852), (315, 11933), (320, 11963), (327, 11999), (334, 12050), (364, 12185), (365, 12188), (371, 12212), (383, 12263),

(392, 12299), (394, 12305), (398, 12320), (408, 12374), (414, 12413), (419, 12437), (420, 12455), (434, 12503), (436, 12509), (440, 12527), (441, 12530), (444, 12545), (446, 12557), (451, 12605), (483, 12743), (503, 12824), (506, 12848), (509, 12860), (510, 12863), (519, 12896), (541, 12998), (547, 13025), (548, 13028), (549, 13031), (550, 13037), (557, 13082), (559, 13094), (561, 13106), (563, 13130), (565, 13145), (566, 13160), (567, 13163), (569, 13187), (572, 13214), (585, 13295), (601, 13379), (616, 13484), (621, 13517), (634, 13583), (635, 13592), (642, 13631), (644, 13664), (646, 13676), (647, 13679), (653, 13694), (655, 13703), (663, 13739), (664, 13748), (666, 13757), (701, 13913), (702, 13916), (703, 13919), (710, 13940), (728, 14021), (734, 14063), (745, 14150), (751, 14183), (753, 14192), (762, 14234), (780, 14348), (804, 14513), (821, 14597), (822, 14600), (828, 14630), (829, 14633), (837, 14666), (838, 14669), (849, 14747), (856, 14804), (866, 14921), (873, 14972), (885, 15074), (890, 15107), (900, 15173), (909, 15239), (910, 15245), (912, 15263), (918, 15296), (929, 15368), (938, 15410), (939, 15416), (941, 15434), (942, 15440), (945, 15461), (948, 15500), (969, 15641), (982, 15704), (991, 15779), (999, 15872),

Gene: Petra_19 Start: 10705, Stop: 16197, Start Num: 15

Candidate Starts for Petra_19:

(Start: 10 @10654 has 26 MA's), (12, 10669), (Start: 13 @10675 has 1 MA's), (Start: 15 @10705 has 1 MA's), (16, 10714), (17, 10717), (18, 10759), (29, 10870), (31, 10891), (62, 11119), (66, 11137), (72, 11158), (73, 11161), (77, 11179), (82, 11203), (100, 11287), (111, 11329), (113, 11344), (115, 11353), (156, 11521), (161, 11548), (185, 11665), (219, 11836), (225, 11866), (266, 12070), (274, 12115), (308, 12289), (315, 12316), (320, 12346), (334, 12433), (342, 12475), (344, 12481), (371, 12595), (375, 12610), (380, 12637), (392, 12682), (394, 12688), (398, 12703), (408, 12757), (414, 12796), (418, 12817), (419, 12820), (420, 12838), (428, 12865), (434, 12886), (436, 12892), (441, 12913), (446, 12940), (500, 13213), (506, 13252), (510, 13267), (518, 13297), (519, 13300), (529, 13351), (548, 13432), (549, 13435), (569, 13468), (575, 13498), (587, 13588), (634, 13855), (642, 13903), (646, 13948), (647, 13951), (653, 13966), (655, 13975), (663, 14011), (664, 14020), (666, 14029), (676, 14080), (689, 14152), (696, 14170), (703, 14191), (727, 14290), (728, 14293), (731, 14326), (740, 14392), (742, 14410), (745, 14425), (751, 14458), (762, 14509), (770, 14560), (805, 14803), (806, 14806), (821, 14878), (822, 14881), (837, 14947), (838, 14950), (841, 14968), (849, 15028), (856, 15085), (857, 15103), (864, 15184), (865, 15187), (866, 15202), (883, 15361), (890, 15415), (900, 15481), (909, 15547), (910, 15553), (929, 15676), (934, 15700), (938, 15718), (941, 15742), (942, 15748), (945, 15769), (948, 15808), (969, 15949), (973, 15961), (982, 16012), (986, 16030), (991, 16087), (999, 16180),

Gene: PhrostedPhlake_18 Start: 10632, Stop: 16172, Start Num: 10

Candidate Starts for PhrostedPhlake_18:

(Start: 10 @10632 has 26 MA's), (12, 10647), (Start: 13 @10653 has 1 MA's), (Start: 15 @10683 has 1 MA's), (16, 10692), (18, 10737), (29, 10848), (31, 10869), (62, 11097), (66, 11115), (72, 11136), (73, 11139), (77, 11157), (82, 11181), (100, 11265), (102, 11271), (111, 11307), (113, 11322), (115, 11331), (128, 11391), (156, 11499), (161, 11526), (185, 11643), (192, 11697), (201, 11739), (219, 11814), (225, 11844), (266, 12048), (274, 12093), (308, 12267), (315, 12294), (320, 12324), (334, 12411), (342, 12453), (357, 12516), (371, 12573), (380, 12615), (392, 12660), (394, 12666), (398, 12681), (408, 12735), (414, 12774), (418, 12795), (419, 12798), (420, 12816), (428, 12843), (434, 12864), (436, 12870), (441, 12891), (446, 12918), (506, 13230), (510, 13245), (518, 13275), (519, 13278), (529, 13329), (548, 13410), (549, 13413), (569, 13446), (575, 13476), (587, 13566), (634, 13833), (642, 13881), (644, 13914), (646, 13926), (647, 13929), (653, 13944), (655, 13953), (663, 13989), (664, 13998), (666, 14007), (687, 14115), (701, 14163), (702, 14166), (703, 14169), (728, 14271), (729, 14274), (745, 14400), (751, 14433), (761, 14481), (762, 14484), (770, 14535), (780, 14604), (805, 14778), (806, 14781), (821, 14853), (822, 14856), (837, 14922), (838, 14925), (841, 14943), (849, 15003), (856, 15060), (857, 15078), (864, 15159), (865, 15162), (866, 15177), (883, 15336), (890, 15390), (900, 15456), (909, 15522), (910, 15528), (916, 15558), (929, 15651), (934, 15675), (938, 15693), (941, 15717), (942, 15723), (945, 15744), (948, 15783), (969, 15924), (982, 15987), (986, 16005), (999, 16155),

Gene: Pipp_17 Start: 10133, Stop: 15790, Start Num: 6

Candidate Starts for Pipp_17:

(5, 10094), (Start: 6 @10133 has 1 MA's), (Start: 10 @10247 has 26 MA's), (12, 10262), (Start: 13 @10268 has 1 MA's), (Start: 15 @10298 has 1 MA's), (16, 10307), (17, 10310), (18, 10352), (29, 10463), (31, 10484), (66, 10730), (72, 10751), (73, 10754), (77, 10772), (82, 10796), (100, 10880), (102, 10886), (111, 10922), (113, 10937), (115, 10946), (119, 10961), (128, 11006), (156, 11114), (161, 11141), (168, 11174), (185, 11258), (225, 11459), (266, 11663), (275, 11714), (278, 11735), (281, 11747), (298, 11837), (308, 11882), (315, 11909), (320, 11939), (334, 12026), (335, 12029), (342, 12068), (359, 12140), (371, 12188), (380, 12230), (392, 12275), (394, 12281), (397, 12293), (398, 12296), (408, 12350), (414, 12389), (418, 12410), (419, 12413), (420, 12431), (428, 12458), (434, 12479), (436, 12485), (441, 12506), (483, 12740), (500, 12806), (506, 12845), (510, 12860), (518, 12890), (519, 12893), (529, 12944), (548, 13025), (549, 13028), (569, 13061), (575, 13091), (587, 13181), (621, 13382), (634, 13448), (642, 13496), (646, 13541), (647, 13544), (653, 13559), (655, 13568), (663, 13604), (664, 13613), (666, 13622), (689, 13745), (703, 13784), (727, 13883), (728, 13886), (740, 13985), (742, 14003), (745, 14018), (751, 14051), (762, 14102), (770, 14153), (780, 14222), (805, 14396), (806, 14399), (820, 14465), (821, 14471), (822, 14474), (837, 14540), (838, 14543), (841, 14561), (849, 14621), (856, 14678), (857, 14696), (864, 14777), (866, 14795), (873, 14846), (883, 14954), (890, 15008), (900, 15074), (907, 15128), (909, 15140), (910, 15146), (916, 15176), (929, 15269), (934, 15293), (938, 15311), (941, 15335), (942, 15341), (945, 15362), (948, 15401), (969, 15542), (982, 15605), (986, 15623), (991, 15680), (999, 15773),

Gene: Pons_16 Start: 9384, Stop: 14465, Start Num: 22

Candidate Starts for Pons_16:

(Start: 22 @9384 has 37 MA's), (36, 9540), (54, 9669), (61, 9699), (78, 9768), (81, 9780), (83, 9795), (88, 9816), (90, 9825), (99, 9867), (102, 9876), (111, 9912), (115, 9936), (128, 9996), (139, 10050), (148, 10089), (151, 10095), (158, 10110), (161, 10131), (172, 10185), (192, 10302), (205, 10365), (216, 10410), (225, 10449), (236, 10491), (266, 10650), (271, 10683), (274, 10695), (278, 10722), (289, 10779), (295, 10809), (297, 10821), (319, 10923), (320, 10926), (334, 11013), (344, 11061), (371, 11175), (383, 11226), (394, 11268), (398, 11283), (400, 11292), (402, 11304), (408, 11337), (415, 11379), (426, 11439), (427, 11442), (428, 11445), (429, 11451), (435, 11469), (441, 11493), (454, 11598), (464, 11646), (483, 11706), (484, 11709), (492, 11745), (510, 11826), (518, 11856), (522, 11877), (523, 11880), (524, 11883), (541, 11961), (547, 11985), (549, 11991), (572, 12117), (579, 12147), (583, 12186), (591, 12234), (596, 12255), (597, 12258), (598, 12264), (607, 12330), (613, 12375), (618, 12408), (622, 12429), (634, 12483), (666, 12633), (668, 12642), (683, 12729), (756, 13047), (761, 13077), (782, 13215), (798, 13296), (827, 13446), (833, 13476), (872, 13686), (874, 13695), (875, 13701), (881, 13737), (900, 13854), (901, 13860), (905, 13902), (909, 13920), (929, 14043), (934, 14067), (937, 14082), (941, 14112), (945, 14139), (946, 14145), (948, 14178), (955, 14247), (956, 14250), (961, 14286), (978, 14358), (981, 14376),

Gene: PotPie_16 Start: 10237, Stop: 15330, Start Num: 22

Candidate Starts for PotPie_16:

(Start: 22 @10237 has 37 MA's), (36, 10393), (54, 10522), (61, 10552), (78, 10621), (81, 10633), (88, 10669), (90, 10678), (99, 10720), (102, 10729), (111, 10765), (115, 10789), (139, 10903), (148, 10942), (158, 10963), (161, 10984), (192, 11155), (205, 11218), (216, 11263), (236, 11344), (266, 11503), (271, 11536), (274, 11548), (278, 11575), (289, 11632), (295, 11662), (297, 11674), (319, 11776), (320, 11779), (334, 11866), (344, 11914), (371, 12028), (394, 12121), (398, 12136), (402, 12157), (408, 12190), (412, 12220), (415, 12232), (420, 12271), (427, 12295), (428, 12298), (435, 12322), (441, 12346), (454, 12451), (475, 12529), (483, 12559), (484, 12562), (492, 12598), (503, 12640), (506, 12664), (510, 12679), (515, 12694), (518, 12709), (523, 12733), (530, 12772), (532, 12787), (533, 12793), (547, 12838), (549, 12844), (572, 12970), (579, 13000), (584, 13051), (591, 13087), (596, 13108), (597, 13111), (607, 13183), (613, 13228), (618, 13261), (622, 13282), (634, 13336), (645, 13411), (668, 13495), (683, 13582), (756, 13900), (761, 13930), (782, 14068), (793,

14119), (798, 14149), (827, 14314), (833, 14344), (867, 14524), (875, 14575), (881, 14602), (884, 14623), (900, 14719), (905, 14767), (909, 14785), (929, 14908), (934, 14932), (937, 14947), (941, 14977), (945, 15004), (946, 15010), (948, 15043), (955, 15112), (956, 15115), (961, 15151), (981, 15241),

Gene: PrincePatrick_17 Start: 10339, Stop: 15960, Start Num: 10

Candidate Starts for PrincePatrick_17:

(Start: 9 @10303 has 1 MA's), (Start: 10 @10339 has 26 MA's), (Start: 13 @10360 has 1 MA's), (16, 10399), (18, 10444), (27, 10534), (28, 10543), (29, 10555), (31, 10576), (35, 10633), (41, 10705), (45, 10726), (53, 10768), (54, 10771), (60, 10798), (65, 10819), (66, 10822), (72, 10843), (77, 10864), (Start: 87 @10915 has 7 MA's), (88, 10918), (102, 10978), (141, 11161), (161, 11233), (194, 11419), (219, 11521), (222, 11536), (225, 11551), (240, 11608), (274, 11800), (296, 11920), (315, 12001), (320, 12031), (327, 12067), (334, 12118), (342, 12160), (359, 12232), (369, 12268), (371, 12280), (383, 12331), (394, 12373), (398, 12388), (408, 12442), (414, 12481), (419, 12505), (420, 12523), (434, 12571), (436, 12577), (440, 12595), (441, 12598), (444, 12613), (446, 12625), (451, 12673), (454, 12703), (473, 12778), (503, 12892), (506, 12916), (509, 12928), (510, 12931), (519, 12964), (541, 13066), (549, 13099), (557, 13150), (559, 13162), (561, 13174), (563, 13198), (567, 13234), (569, 13258), (572, 13285), (585, 13366), (601, 13450), (616, 13555), (621, 13588), (634, 13654), (635, 13663), (642, 13702), (644, 13735), (646, 13747), (647, 13750), (653, 13765), (655, 13774), (663, 13810), (664, 13819), (666, 13828), (674, 13870), (701, 13984), (702, 13987), (703, 13990), (710, 14011), (728, 14092), (734, 14134), (745, 14221), (751, 14254), (753, 14263), (762, 14305), (780, 14419), (821, 14668), (822, 14671), (828, 14701), (829, 14704), (835, 14728), (837, 14737), (838, 14740), (849, 14818), (856, 14875), (866, 14992), (873, 15043), (890, 15181), (900, 15247), (909, 15313), (910, 15319), (912, 15337), (927, 15430), (929, 15442), (939, 15490), (941, 15508), (942, 15514), (945, 15535), (948, 15574), (969, 15715), (982, 15778), (991, 15853), (999, 15946),

Gene: PsychoKiller_16 Start: 9629, Stop: 14767, Start Num: 22

Candidate Starts for PsychoKiller_16:

(19, 9605), (Start: 22 @9629 has 37 MA's), (25, 9656), (36, 9785), (43, 9860), (78, 10013), (79, 10016), (99, 10112), (102, 10121), (108, 10151), (111, 10157), (113, 10172), (114, 10175), (119, 10196), (135, 10268), (138, 10289), (158, 10355), (161, 10376), (185, 10493), (216, 10655), (225, 10694), (243, 10769), (271, 10928), (274, 10940), (278, 10967), (285, 11012), (289, 11024), (308, 11114), (313, 11132), (316, 11153), (321, 11183), (327, 11207), (329, 11219), (334, 11258), (340, 11291), (364, 11393), (365, 11396), (371, 11420), (394, 11513), (398, 11528), (404, 11567), (431, 11702), (432, 11705), (441, 11738), (455, 11846), (456, 11849), (462, 11900), (484, 11975), (506, 12077), (518, 12122), (522, 12143), (523, 12146), (524, 12149), (540, 12224), (549, 12257), (554, 12278), (557, 12308), (569, 12356), (570, 12362), (574, 12389), (597, 12524), (613, 12641), (618, 12674), (622, 12695), (637, 12764), (639, 12770), (641, 12785), (666, 12905), (668, 12914), (683, 12998), (756, 13319), (792, 13538), (798, 13574), (839, 13787), (874, 13979), (881, 14027), (884, 14048), (900, 14156), (909, 14222), (912, 14240), (929, 14345), (935, 14375), (937, 14384), (941, 14414), (948, 14480), (953, 14528), (961, 14588), (980, 14675), (989, 14738),

Gene: Puppies_16 Start: 9686, Stop: 14305, Start Num: 39

Candidate Starts for Puppies_16:

(Start: 39 @9686 has 7 MA's), (122, 10070), (140, 10154), (152, 10196), (161, 10232), (170, 10271), (187, 10361), (188, 10373), (192, 10394), (193, 10403), (205, 10457), (220, 10514), (226, 10535), (230, 10547), (232, 10550), (239, 10580), (243, 10601), (247, 10613), (283, 10784), (293, 10838), (320, 10952), (327, 10982), (335, 11033), (341, 11063), (350, 11099), (380, 11231), (383, 11240), (385, 11252), (403, 11303), (417, 11369), (429, 11429), (433, 11441), (449, 11528), (462, 11564), (475, 11606), (476, 11612), (492, 11675), (493, 11678), (503, 11717), (506, 11741), (510, 11756), (519, 11789), (524, 11813), (529, 11840), (539, 11882), (542, 11891), (549, 11921), (555, 11945), (562, 12005), (571, 12038), (573, 12050), (578, 12074), (579, 12077), (586, 12137), (596, 12182), (600, 12206), (606, 12248), (617, 12323), (618, 12335), (622, 12356), (623, 12359), (627, 12374),

(650, 12500), (651, 12503), (678, 12632), (681, 12653), (683, 12662), (697, 12716), (699, 12722), (756, 12980), (783, 13151), (784, 13169), (805, 13316), (816, 13358), (910, 13739), (918, 13790), (923, 13817), (929, 13865), (934, 13889), (939, 13913), (941, 13931), (948, 13997), (960, 14102), (965, 14126), (966, 14129), (971, 14147), (972, 14150), (987, 14237),

Gene: Quasar_16 Start: 10238, Stop: 15376, Start Num: 22

Candidate Starts for Quasar_16:

(19, 10214), (Start: 22 @10238 has 37 MA's), (25, 10265), (36, 10394), (43, 10469), (78, 10622), (79, 10625), (99, 10721), (102, 10730), (108, 10760), (111, 10766), (113, 10781), (114, 10784), (119, 10805), (135, 10877), (138, 10898), (158, 10964), (161, 10985), (185, 11102), (216, 11264), (225, 11303), (243, 11378), (271, 11537), (274, 11549), (278, 11576), (285, 11621), (289, 11633), (308, 11723), (313, 11741), (316, 11762), (321, 11792), (327, 11816), (329, 11828), (334, 11867), (340, 11900), (364, 12002), (365, 12005), (371, 12029), (373, 12035), (394, 12122), (398, 12137), (404, 12176), (432, 12314), (440, 12344), (441, 12347), (455, 12455), (456, 12458), (462, 12509), (484, 12584), (506, 12686), (518, 12731), (522, 12752), (523, 12755), (524, 12758), (540, 12833), (549, 12866), (554, 12887), (557, 12917), (569, 12965), (570, 12971), (574, 12998), (597, 13133), (613, 13250), (618, 13283), (622, 13304), (623, 13307), (637, 13373), (639, 13379), (641, 13394), (666, 13514), (668, 13523), (683, 13607), (756, 13928), (792, 14147), (798, 14183), (839, 14396), (874, 14588), (881, 14636), (884, 14657), (900, 14765), (909, 14831), (912, 14849), (929, 14954), (935, 14984), (937, 14993), (941, 15023), (948, 15089), (953, 15137), (961, 15197), (980, 15284), (989, 15347),

Gene: RADical_17 Start: 9630, Stop: 14768, Start Num: 22

Candidate Starts for RADical_17:

(19, 9606), (Start: 22 @9630 has 37 MA's), (25, 9657), (36, 9786), (43, 9861), (78, 10014), (79, 10017), (99, 10113), (102, 10122), (108, 10152), (111, 10158), (113, 10173), (114, 10176), (118, 10191), (119, 10197), (135, 10269), (138, 10290), (158, 10356), (161, 10377), (185, 10494), (216, 10656), (225, 10695), (243, 10770), (271, 10929), (274, 10941), (278, 10968), (285, 11013), (289, 11025), (308, 11115), (313, 11133), (316, 11154), (321, 11184), (327, 11208), (329, 11220), (334, 11259), (340, 11292), (364, 11394), (365, 11397), (371, 11421), (394, 11514), (398, 11529), (404, 11568), (420, 11664), (423, 11676), (432, 11706), (441, 11739), (455, 11847), (456, 11850), (462, 11901), (484, 11976), (506, 12078), (518, 12123), (522, 12144), (523, 12147), (524, 12150), (540, 12225), (549, 12258), (554, 12279), (569, 12357), (570, 12363), (574, 12390), (597, 12525), (613, 12642), (618, 12675), (622, 12696), (637, 12765), (639, 12771), (641, 12786), (666, 12906), (668, 12915), (683, 12999), (756, 13320), (792, 13539), (798, 13575), (839, 13788), (874, 13980), (881, 14028), (884, 14049), (900, 14157), (909, 14223), (912, 14241), (923, 14301), (929, 14346), (935, 14376), (937, 14385), (941, 14415), (948, 14481), (953, 14529), (961, 14589), (980, 14676), (989, 14739),

Gene: RSchmailzl_17 Start: 9773, Stop: 14911, Start Num: 22

Candidate Starts for RSchmailzl_17:

(19, 9749), (Start: 22 @9773 has 37 MA's), (25, 9800), (36, 9929), (43, 10004), (78, 10157), (79, 10160), (99, 10256), (102, 10265), (108, 10295), (111, 10301), (113, 10316), (114, 10319), (119, 10340), (135, 10412), (138, 10433), (158, 10499), (161, 10520), (185, 10637), (216, 10799), (225, 10838), (243, 10913), (271, 11072), (274, 11084), (278, 11111), (285, 11156), (289, 11168), (308, 11258), (313, 11276), (316, 11297), (321, 11327), (327, 11351), (329, 11363), (334, 11402), (340, 11435), (343, 11447), (364, 11537), (365, 11540), (371, 11564), (373, 11570), (394, 11657), (398, 11672), (404, 11711), (414, 11765), (420, 11807), (423, 11819), (429, 11840), (441, 11882), (455, 11990), (463, 12050), (484, 12119), (504, 12209), (506, 12221), (518, 12266), (522, 12287), (523, 12290), (524, 12293), (540, 12368), (546, 12386), (549, 12401), (557, 12452), (569, 12500), (570, 12506), (574, 12533), (597, 12668), (613, 12785), (618, 12818), (622, 12839), (623, 12842), (637, 12908), (639, 12914), (641, 12929), (666, 13049), (668, 13058), (683, 13142), (756, 13463), (792, 13682), (798, 13718), (839, 13931), (874, 14123), (881, 14171), (884, 14192), (900, 14300), (909, 14366), (912, 14384), (929, 14489), (935, 14519), (937, 14528), (941, 14558), (948, 14624), (953,

14672), (961, 14732), (980, 14819), (989, 14882),

Gene: RanchParmCat_19 Start: 10311, Stop: 14516, Start Num: 87

Candidate Starts for RanchParmCat_19:

(Start: 87 @10311 has 7 MA's), (Start: 95 @10338 has 1 MA's), (163, 10626), (167, 10647), (169, 10653), (174, 10686), (179, 10704), (183, 10728), (198, 10818), (200, 10827), (202, 10836), (209, 10869), (215, 10896), (218, 10905), (223, 10929), (258, 11082), (269, 11145), (270, 11160), (277, 11196), (282, 11226), (285, 11247), (295, 11289), (315, 11370), (328, 11445), (331, 11454), (333, 11475), (362, 11622), (398, 11763), (402, 11784), (407, 11814), (408, 11817), (410, 11835), (414, 11856), (418, 11877), (420, 11898), (435, 11949), (436, 11952), (437, 11955), (441, 11973), (469, 12054), (480, 12084), (492, 12135), (504, 12189), (510, 12216), (519, 12249), (530, 12309), (548, 12378), (549, 12381), (588, 12483), (590, 12489), (600, 12537), (601, 12540), (613, 12633), (618, 12666), (622, 12687), (625, 12696), (627, 12705), (629, 12711), (670, 12864), (682, 12933), (683, 12939), (693, 12975), (731, 13104), (756, 13245), (760, 13269), (768, 13314), (793, 13467), (794, 13470), (827, 13659), (833, 13689), (893, 13866), (902, 13938), (905, 13962), (908, 13974), (912, 13998), (916, 14010), (928, 14094), (929, 14100), (938, 14142), (941, 14163), (946, 14196), (948, 14229), (950, 14250), (953, 14277), (956, 14301), (961, 14337), (974, 14385), (989, 14487),

Gene: RedBaron_18 Start: 9673, Stop: 14811, Start Num: 22

Candidate Starts for RedBaron_18:

(19, 9649), (Start: 22 @9673 has 37 MA's), (25, 9700), (36, 9829), (43, 9904), (78, 10057), (79, 10060), (99, 10156), (102, 10165), (108, 10195), (111, 10201), (113, 10216), (114, 10219), (119, 10240), (135, 10312), (138, 10333), (158, 10399), (161, 10420), (185, 10537), (216, 10699), (225, 10738), (243, 10813), (278, 11011), (300, 11119), (316, 11197), (320, 11215), (322, 11233), (334, 11302), (335, 11305), (336, 11314), (343, 11347), (370, 11458), (371, 11464), (394, 11557), (398, 11572), (420, 11707), (429, 11740), (441, 11782), (455, 11890), (462, 11944), (483, 12016), (484, 12019), (506, 12121), (518, 12166), (520, 12175), (522, 12187), (523, 12190), (524, 12193), (540, 12268), (541, 12271), (542, 12274), (546, 12286), (547, 12295), (549, 12301), (556, 12343), (557, 12352), (569, 12400), (574, 12433), (597, 12568), (613, 12685), (618, 12718), (622, 12739), (637, 12808), (639, 12814), (666, 12949), (668, 12958), (683, 13042), (756, 13363), (792, 13582), (798, 13618), (874, 14023), (881, 14071), (884, 14092), (900, 14200), (909, 14266), (912, 14284), (929, 14389), (935, 14419), (937, 14428), (941, 14458), (948, 14524), (953, 14572), (961, 14632), (980, 14719), (989, 14782),

Gene: Reyja_17 Start: 10078, Stop: 14313, Start Num: 40

Candidate Starts for Reyja_17:

(34, 10009), (37, 10039), (Start: 40 @10078 has 14 MA's), (44, 10105), (48, 10123), (55, 10156), (56, 10168), (104, 10375), (123, 10468), (146, 10567), (164, 10630), (165, 10639), (202, 10825), (217, 10885), (220, 10897), (223, 10906), (239, 10963), (243, 10984), (247, 10996), (283, 11167), (293, 11221), (335, 11416), (341, 11446), (356, 11506), (363, 11542), (390, 11644), (416, 11740), (427, 11800), (433, 11821), (435, 11827), (466, 11908), (467, 11917), (494, 12007), (495, 12010), (503, 12043), (516, 12103), (517, 12106), (553, 12196), (587, 12220), (597, 12256), (598, 12262), (600, 12277), (606, 12319), (612, 12370), (618, 12406), (630, 12457), (645, 12556), (673, 12658), (675, 12667), (685, 12718), (688, 12742), (698, 12769), (705, 12787), (707, 12796), (720, 12835), (731, 12904), (756, 13045), (782, 13213), (784, 13237), (788, 13261), (794, 13279), (831, 13468), (832, 13471), (836, 13489), (910, 13759), (929, 13879), (941, 13945), (948, 14011), (965, 14140),

Gene: Santhid_16 Start: 9908, Stop: 14146, Start Num: 40

Candidate Starts for Santhid_16:

(34, 9839), (Start: 40 @9908 has 14 MA's), (44, 9935), (45, 9941), (50, 9962), (56, 9998), (104, 10205), (123, 10298), (164, 10460), (165, 10469), (220, 10727), (239, 10793), (243, 10814), (247, 10826), (254, 10850), (283, 10997), (293, 11051), (306, 11096), (335, 11246), (341, 11276), (355, 11333), (361, 11366), (390, 11474), (416, 11570), (427, 11630), (433, 11651), (435, 11657), (466, 11738),

(467, 11747), (495, 11840), (503, 11873), (516, 11933), (517, 11936), (523, 11972), (597, 12086), (598, 12092), (600, 12107), (606, 12149), (612, 12200), (618, 12236), (630, 12287), (645, 12386), (650, 12401), (675, 12497), (685, 12548), (688, 12572), (698, 12599), (705, 12617), (707, 12626), (720, 12665), (731, 12734), (756, 12875), (760, 12899), (761, 12905), (782, 13040), (799, 13148), (831, 13292), (832, 13295), (910, 13586), (916, 13616), (929, 13712), (934, 13736), (941, 13778), (945, 13805), (948, 13844), (958, 13931), (965, 13973), (966, 13976),

Gene: Schnabeltier_17 Start: 10933, Stop: 16047, Start Num: 20

Candidate Starts for Schnabeltier_17:

(Start: 20 @10933 has 13 MA's), (Start: 22 @10942 has 37 MA's), (51, 11215), (53, 11224), (60, 11254), (63, 11263), (77, 11320), (90, 11383), (105, 11455), (112, 11476), (115, 11494), (148, 11647), (161, 11689), (172, 11743), (178, 11776), (216, 11968), (217, 11971), (225, 12007), (244, 12085), (251, 12124), (266, 12208), (271, 12241), (273, 12250), (275, 12259), (281, 12292), (282, 12304), (286, 12328), (296, 12373), (298, 12382), (307, 12418), (308, 12427), (315, 12454), (316, 12466), (320, 12484), (327, 12520), (351, 12643), (359, 12685), (392, 12820), (393, 12823), (394, 12826), (398, 12841), (408, 12895), (414, 12934), (428, 13003), (431, 13015), (436, 13030), (441, 13051), (444, 13066), (446, 13078), (450, 13114), (453, 13150), (494, 13312), (526, 13369), (536, 13381), (537, 13384), (549, 13417), (568, 13510), (569, 13516), (570, 13522), (572, 13543), (573, 13546), (574, 13549), (583, 13612), (588, 13648), (592, 13663), (598, 13687), (600, 13702), (601, 13705), (602, 13711), (609, 13765), (626, 13864), (634, 13906), (645, 13984), (654, 14008), (666, 14053), (690, 14179), (694, 14188), (701, 14206), (702, 14209), (716, 14248), (717, 14251), (718, 14260), (744, 14419), (767, 14539), (779, 14617), (789, 14665), (793, 14677), (800, 14737), (824, 14854), (830, 14881), (834, 14899), (846, 14977), (847, 14983), (850, 14992), (852, 15019), (859, 15112), (865, 15151), (870, 15193), (889, 15346), (896, 15379), (897, 15382), (902, 15439), (903, 15448), (904, 15460), (909, 15481), (913, 15502), (944, 15694), (948, 15733), (956, 15802), (964, 15856), (993, 16009),

Gene: SheckWes_15 Start: 9372, Stop: 14465, Start Num: 22

Candidate Starts for SheckWes_15:

(Start: 22 @9372 has 37 MA's), (36, 9528), (50, 9633), (54, 9657), (66, 9708), (70, 9723), (78, 9756), (88, 9804), (90, 9813), (99, 9855), (101, 9861), (102, 9864), (111, 9900), (115, 9924), (121, 9951), (139, 10038), (148, 10077), (151, 10083), (158, 10098), (161, 10119), (172, 10173), (192, 10290), (205, 10353), (216, 10398), (225, 10437), (236, 10479), (266, 10641), (268, 10650), (271, 10674), (274, 10686), (278, 10713), (281, 10725), (289, 10770), (295, 10800), (297, 10812), (319, 10914), (320, 10917), (334, 11004), (338, 11031), (354, 11091), (360, 11121), (365, 11142), (371, 11166), (383, 11217), (394, 11259), (398, 11274), (400, 11283), (402, 11295), (408, 11328), (415, 11370), (426, 11430), (427, 11433), (428, 11436), (429, 11442), (435, 11460), (441, 11484), (452, 11568), (454, 11589), (464, 11637), (483, 11697), (484, 11700), (492, 11736), (506, 11802), (510, 11817), (518, 11847), (522, 11868), (523, 11871), (524, 11874), (541, 11952), (547, 11976), (549, 11982), (572, 12108), (579, 12138), (583, 12177), (591, 12225), (596, 12246), (597, 12249), (598, 12255), (607, 12321), (613, 12366), (618, 12399), (622, 12420), (634, 12474), (666, 12624), (668, 12633), (683, 12720), (731, 12897), (756, 13038), (761, 13068), (782, 13206), (798, 13287), (827, 13440), (833, 13470), (872, 13686), (874, 13695), (875, 13701), (881, 13737), (900, 13854), (901, 13860), (905, 13902), (909, 13920), (929, 14043), (934, 14067), (937, 14082), (941, 14112), (945, 14139), (946, 14145), (948, 14178), (955, 14247), (956, 14250), (961, 14286), (978, 14358), (979, 14361), (981, 14376),

Gene: SketchMex_15 Start: 9616, Stop: 14415, Start Num: 91

Candidate Starts for SketchMex_15:

(Start: 91 @9616 has 16 MA's), (Start: 97 @9643 has 1 MA's), (129, 9772), (157, 9874), (165, 9919), (169, 9931), (172, 9949), (175, 9976), (177, 9979), (181, 9994), (189, 10045), (190, 10048), (202, 10105), (203, 10108), (212, 10150), (216, 10168), (227, 10213), (237, 10249), (244, 10282), (250, 10315), (252, 10327), (262, 10381), (269, 10420), (270, 10435), (272, 10444), (277, 10471), (285,

10522), (295, 10564), (299, 10582), (301, 10591), (315, 10645), (325, 10708), (329, 10723), (340, 10786), (362, 10876), (370, 10903), (392, 10996), (394, 11002), (398, 11017), (404, 11056), (419, 11134), (424, 11167), (436, 11206), (440, 11224), (441, 11227), (446, 11254), (452, 11311), (454, 11332), (463, 11395), (475, 11431), (478, 11443), (484, 11464), (492, 11500), (503, 11542), (504, 11554), (506, 11566), (518, 11611), (519, 11614), (522, 11632), (523, 11635), (524, 11638), (540, 11713), (542, 11719), (549, 11746), (558, 11806), (561, 11821), (572, 11872), (573, 11875), (574, 11878), (577, 11896), (592, 11995), (596, 12010), (597, 12013), (618, 12163), (622, 12184), (632, 12226), (637, 12253), (639, 12259), (665, 12391), (668, 12403), (683, 12490), (694, 12532), (706, 12568), (726, 12643), (735, 12694), (738, 12733), (752, 12811), (764, 12862), (772, 12919), (796, 13057), (802, 13132), (833, 13276), (839, 13297), (860, 13474), (862, 13480), (900, 13804), (901, 13810), (909, 13870), (912, 13888), (918, 13921), (929, 13993), (937, 14032), (941, 14062), (948, 14128), (953, 14176), (961, 14236), (981, 14326), (989, 14386),

Gene: Socotra_17 Start: 9629, Stop: 14767, Start Num: 22

Candidate Starts for Socotra_17:

(19, 9605), (Start: 22 @9629 has 37 MA's), (25, 9656), (36, 9785), (43, 9860), (78, 10013), (79, 10016), (99, 10112), (102, 10121), (108, 10151), (111, 10157), (113, 10172), (114, 10175), (119, 10196), (135, 10268), (138, 10289), (158, 10355), (161, 10376), (185, 10493), (216, 10655), (225, 10694), (243, 10769), (271, 10928), (274, 10940), (278, 10967), (285, 11012), (289, 11024), (308, 11114), (313, 11132), (316, 11153), (321, 11183), (327, 11207), (329, 11219), (334, 11258), (340, 11291), (364, 11393), (365, 11396), (371, 11420), (394, 11513), (398, 11528), (404, 11567), (414, 11621), (420, 11663), (423, 11675), (432, 11705), (440, 11735), (441, 11738), (455, 11846), (456, 11849), (462, 11900), (484, 11975), (504, 12065), (506, 12077), (518, 12122), (522, 12143), (523, 12146), (524, 12149), (540, 12224), (549, 12257), (554, 12278), (557, 12308), (569, 12356), (570, 12362), (574, 12389), (597, 12524), (613, 12641), (618, 12674), (622, 12695), (623, 12698), (637, 12764), (639, 12770), (641, 12785), (666, 12905), (668, 12914), (683, 12998), (756, 13319), (792, 13538), (798, 13574), (839, 13787), (874, 13979), (881, 14027), (884, 14048), (900, 14156), (909, 14222), (912, 14240), (923, 14300), (929, 14345), (935, 14375), (937, 14384), (941, 14414), (948, 14480), (953, 14528), (961, 14588), (980, 14675), (989, 14738),

Gene: Sopespian_16 Start: 9630, Stop: 14768, Start Num: 22

Candidate Starts for Sopespian_16:

(19, 9606), (Start: 22 @9630 has 37 MA's), (25, 9657), (36, 9786), (43, 9861), (78, 10014), (79, 10017), (99, 10113), (102, 10122), (108, 10152), (111, 10158), (113, 10173), (114, 10176), (119, 10197), (135, 10269), (138, 10290), (158, 10356), (161, 10377), (185, 10494), (216, 10656), (225, 10695), (243, 10770), (271, 10929), (274, 10941), (278, 10968), (285, 11013), (289, 11025), (308, 11115), (313, 11133), (316, 11154), (321, 11184), (327, 11208), (329, 11220), (334, 11259), (340, 11292), (364, 11394), (365, 11397), (371, 11421), (394, 11514), (398, 11529), (404, 11568), (431, 11703), (432, 11706), (441, 11739), (455, 11847), (456, 11850), (462, 11901), (484, 11976), (504, 12066), (506, 12078), (518, 12123), (522, 12144), (523, 12147), (524, 12150), (540, 12225), (549, 12258), (554, 12279), (557, 12309), (569, 12357), (570, 12363), (574, 12390), (597, 12525), (613, 12642), (618, 12675), (622, 12696), (637, 12765), (639, 12771), (641, 12786), (666, 12906), (668, 12915), (683, 12999), (756, 13320), (792, 13539), (798, 13575), (839, 13788), (874, 13980), (881, 14028), (884, 14049), (900, 14157), (909, 14223), (912, 14241), (929, 14346), (935, 14376), (937, 14385), (941, 14415), (948, 14481), (953, 14529), (961, 14589), (980, 14676), (989, 14739),

Gene: Starburst_17 Start: 9629, Stop: 14767, Start Num: 22

Candidate Starts for Starburst_17:

(19, 9605), (Start: 22 @9629 has 37 MA's), (25, 9656), (36, 9785), (43, 9860), (78, 10013), (79, 10016), (99, 10112), (102, 10121), (108, 10151), (111, 10157), (113, 10172), (114, 10175), (119, 10196), (135, 10268), (138, 10289), (158, 10355), (161, 10376), (185, 10493), (216, 10655), (225, 10694), (243, 10769), (271, 10928), (274, 10940), (278, 10967), (285, 11012), (289, 11024), (308, 11114), (313, 11132), (316, 11153), (321, 11183), (327, 11207), (329, 11219), (334, 11258), (340, 11291), (364,

11393), (365, 11396), (371, 11420), (373, 11426), (394, 11513), (398, 11528), (404, 11567), (432, 11705), (440, 11735), (441, 11738), (455, 11846), (456, 11849), (462, 11900), (484, 11975), (506, 12077), (518, 12122), (522, 12143), (523, 12146), (524, 12149), (540, 12224), (549, 12257), (554, 12278), (557, 12308), (569, 12356), (570, 12362), (574, 12389), (597, 12524), (613, 12641), (618, 12674), (622, 12695), (637, 12764), (639, 12770), (641, 12785), (666, 12905), (668, 12914), (683, 12998), (756, 13319), (792, 13538), (798, 13574), (839, 13787), (874, 13979), (881, 14027), (884, 14048), (900, 14156), (909, 14222), (912, 14240), (923, 14300), (929, 14345), (935, 14375), (937, 14384), (941, 14414), (948, 14480), (953, 14528), (961, 14588), (980, 14675), (989, 14738),

Gene: SteamedHams_18 Start: 9646, Stop: 14433, Start Num: 91

Candidate Starts for SteamedHams_18:

(Start: 91 @9646 has 16 MA's), (Start: 97 @9673 has 1 MA's), (117, 9751), (129, 9802), (149, 9889), (157, 9904), (169, 9961), (172, 9979), (175, 10006), (177, 10009), (190, 10078), (202, 10135), (212, 10180), (216, 10198), (227, 10243), (237, 10279), (244, 10312), (253, 10360), (255, 10363), (262, 10411), (269, 10450), (270, 10465), (297, 10606), (310, 10657), (315, 10675), (324, 10729), (362, 10906), (370, 10933), (392, 11026), (394, 11032), (398, 11047), (404, 11086), (407, 11098), (419, 11164), (436, 11236), (440, 11254), (441, 11257), (446, 11284), (492, 11530), (506, 11596), (518, 11641), (522, 11662), (523, 11665), (524, 11668), (530, 11704), (540, 11743), (542, 11749), (549, 11776), (573, 11905), (574, 11908), (577, 11926), (598, 12049), (600, 12064), (618, 12193), (622, 12214), (632, 12256), (637, 12283), (639, 12289), (665, 12421), (668, 12433), (683, 12520), (694, 12562), (706, 12598), (735, 12724), (738, 12763), (764, 12892), (772, 12949), (777, 12991), (796, 13084), (802, 13159), (817, 13222), (833, 13303), (839, 13324), (860, 13501), (862, 13507), (887, 13726), (898, 13804), (900, 13822), (901, 13828), (909, 13888), (912, 13906), (918, 13939), (929, 14011), (937, 14050), (941, 14080), (948, 14146), (953, 14194), (961, 14254), (981, 14344), (989, 14404),

Gene: SummitAcademy_15 Start: 9452, Stop: 14545, Start Num: 22

Candidate Starts for SummitAcademy_15:

(Start: 22 @9452 has 37 MA's), (36, 9608), (54, 9737), (61, 9767), (78, 9836), (81, 9848), (88, 9884), (99, 9935), (102, 9944), (111, 9980), (115, 10004), (128, 10064), (139, 10118), (148, 10157), (151, 10163), (158, 10178), (161, 10199), (192, 10370), (205, 10433), (216, 10478), (236, 10559), (266, 10718), (271, 10751), (274, 10763), (278, 10790), (289, 10847), (295, 10877), (297, 10889), (319, 10991), (320, 10994), (334, 11081), (344, 11129), (371, 11243), (394, 11336), (398, 11351), (402, 11372), (408, 11405), (412, 11435), (415, 11447), (420, 11486), (427, 11510), (428, 11513), (435, 11537), (441, 11561), (454, 11666), (475, 11744), (483, 11774), (484, 11777), (492, 11813), (503, 11855), (506, 11879), (510, 11894), (515, 11909), (518, 11924), (523, 11948), (530, 11987), (532, 12002), (533, 12008), (541, 12029), (547, 12053), (549, 12059), (572, 12185), (579, 12215), (584, 12266), (591, 12302), (596, 12323), (597, 12326), (607, 12398), (613, 12443), (618, 12476), (622, 12497), (634, 12551), (645, 12626), (668, 12710), (683, 12797), (756, 13115), (761, 13145), (782, 13283), (793, 13334), (798, 13364), (827, 13529), (833, 13559), (867, 13739), (875, 13790), (881, 13817), (884, 13838), (900, 13934), (905, 13982), (909, 14000), (929, 14123), (934, 14147), (937, 14162), (941, 14192), (945, 14219), (946, 14225), (948, 14258), (955, 14327), (956, 14330), (961, 14366), (981, 14456),

Gene: Survivors_18 Start: 10474, Stop: 15597, Start Num: 22

Candidate Starts for Survivors_18:

(19, 10453), (Start: 22 @10474 has 37 MA's), (25, 10501), (36, 10630), (48, 10726), (58, 10777), (74, 10834), (80, 10867), (81, 10870), (99, 10957), (103, 10969), (113, 11017), (114, 11020), (115, 11026), (126, 11080), (128, 11086), (138, 11134), (158, 11200), (161, 11221), (243, 11614), (244, 11617), (263, 11719), (274, 11785), (275, 11791), (278, 11812), (320, 12016), (322, 12034), (324, 12040), (327, 12052), (329, 12064), (334, 12103), (336, 12115), (344, 12151), (357, 12208), (362, 12232), (364, 12238), (394, 12358), (398, 12373), (404, 12412), (418, 12487), (423, 12520), (428, 12535), (429, 12541), (431, 12547), (441, 12583), (455, 12691), (466, 12763), (483, 12817), (518, 12967),

(523, 12991), (533, 13051), (538, 13063), (540, 13069), (547, 13096), (548, 13099), (549, 13102), (568, 13195), (569, 13201), (577, 13252), (586, 13321), (593, 13354), (597, 13369), (598, 13375), (606, 13432), (608, 13444), (612, 13483), (613, 13486), (617, 13507), (618, 13519), (622, 13540), (623, 13543), (632, 13582), (634, 13594), (637, 13609), (666, 13750), (683, 13846), (703, 13912), (710, 13933), (713, 13939), (756, 14176), (761, 14206), (768, 14245), (787, 14380), (796, 14410), (798, 14431), (823, 14569), (833, 14617), (880, 14848), (881, 14854), (900, 14983), (909, 15049), (918, 15100), (929, 15172), (937, 15211), (941, 15241), (946, 15274), (948, 15307), (956, 15379), (970, 15451), (980, 15505), (982, 15511), (989, 15568),

Gene: SweatNTears_18 Start: 10127, Stop: 14926, Start Num: 91

Candidate Starts for SweatNTears_18:

(Start: 91 @10127 has 16 MA's), (Start: 97 @10154 has 1 MA's), (98, 10160), (129, 10283), (157, 10385), (165, 10430), (169, 10442), (172, 10460), (175, 10487), (177, 10490), (181, 10505), (189, 10556), (190, 10559), (202, 10616), (203, 10619), (212, 10661), (216, 10679), (227, 10724), (237, 10760), (244, 10793), (250, 10826), (252, 10838), (262, 10892), (269, 10931), (270, 10946), (272, 10955), (277, 10982), (285, 11033), (299, 11093), (301, 11102), (315, 11156), (325, 11219), (329, 11234), (340, 11297), (362, 11387), (370, 11414), (388, 11495), (392, 11507), (394, 11513), (398, 11528), (403, 11558), (404, 11567), (419, 11645), (424, 11678), (436, 11717), (440, 11735), (441, 11738), (446, 11765), (452, 11822), (454, 11843), (478, 11954), (484, 11975), (492, 12011), (503, 12053), (504, 12065), (506, 12077), (518, 12122), (519, 12125), (522, 12143), (523, 12146), (524, 12149), (540, 12224), (549, 12257), (558, 12317), (572, 12383), (573, 12386), (574, 12389), (577, 12407), (592, 12506), (596, 12521), (597, 12524), (618, 12674), (622, 12695), (632, 12737), (637, 12764), (639, 12770), (665, 12902), (668, 12914), (683, 13001), (694, 13043), (706, 13079), (726, 13154), (735, 13205), (738, 13244), (743, 13268), (764, 13373), (772, 13430), (796, 13568), (802, 13643), (833, 13787), (839, 13808), (860, 13985), (862, 13991), (900, 14315), (901, 14321), (909, 14381), (912, 14399), (918, 14432), (929, 14504), (937, 14543), (941, 14573), (948, 14639), (953, 14687), (961, 14747), (981, 14837), (989, 14897),

Gene: Tarnish_16 Start: 9751, Stop: 14835, Start Num: 22

Candidate Starts for Tarnish_16:

(Start: 22 @9751 has 37 MA's), (36, 9907), (54, 10036), (61, 10066), (78, 10135), (81, 10147), (88, 10183), (99, 10234), (102, 10243), (111, 10279), (115, 10303), (128, 10363), (139, 10417), (148, 10456), (158, 10477), (161, 10498), (190, 10657), (192, 10669), (205, 10732), (216, 10777), (236, 10858), (266, 11017), (271, 11050), (274, 11062), (278, 11089), (289, 11146), (295, 11176), (297, 11188), (319, 11290), (320, 11293), (334, 11380), (344, 11428), (371, 11542), (394, 11635), (398, 11650), (402, 11671), (408, 11704), (412, 11734), (415, 11746), (420, 11785), (427, 11809), (428, 11812), (435, 11836), (441, 11860), (454, 11965), (464, 12013), (475, 12043), (479, 12058), (483, 12073), (492, 12112), (503, 12154), (506, 12178), (515, 12208), (518, 12223), (523, 12247), (530, 12286), (532, 12301), (533, 12307), (541, 12328), (547, 12352), (549, 12358), (572, 12484), (579, 12514), (583, 12553), (591, 12601), (596, 12622), (597, 12625), (607, 12697), (613, 12742), (618, 12775), (622, 12796), (634, 12850), (645, 12925), (668, 13009), (683, 13096), (733, 13282), (756, 13414), (761, 13444), (782, 13582), (793, 13633), (798, 13663), (816, 13768), (827, 13819), (833, 13849), (867, 14029), (875, 14080), (881, 14107), (884, 14128), (900, 14224), (905, 14272), (909, 14290), (929, 14413), (934, 14437), (937, 14452), (941, 14482), (945, 14509), (946, 14515), (948, 14548), (955, 14617), (956, 14620), (961, 14656), (981, 14746),

Gene: TaronosaurusRx_17 Start: 10940, Stop: 16063, Start Num: 20

Candidate Starts for TaronosaurusRx_17:

(Start: 20 @10940 has 13 MA's), (21, 10946), (51, 11219), (53, 11228), (63, 11267), (77, 11324), (90, 11387), (112, 11480), (115, 11498), (148, 11651), (161, 11693), (178, 11780), (216, 11972), (217, 11975), (225, 12011), (238, 12059), (266, 12212), (271, 12245), (273, 12254), (275, 12263), (281, 12296), (282, 12308), (286, 12332), (296, 12377), (298, 12386), (308, 12431), (315, 12458), (316, 12470), (320, 12488), (351, 12647), (356, 12671), (357, 12680), (358, 12683), (392, 12824), (393,

12827), (394, 12830), (397, 12842), (398, 12845), (408, 12899), (414, 12938), (436, 13034), (441, 13055), (444, 13070), (446, 13082), (453, 13154), (494, 13316), (526, 13373), (536, 13385), (537, 13388), (549, 13421), (568, 13514), (569, 13520), (570, 13526), (572, 13547), (573, 13550), (574, 13553), (578, 13574), (581, 13604), (588, 13652), (589, 13658), (592, 13667), (598, 13691), (600, 13706), (601, 13709), (602, 13715), (608, 13760), (609, 13769), (626, 13868), (634, 13910), (640, 13943), (645, 13988), (654, 14012), (666, 14057), (669, 14075), (702, 14213), (709, 14234), (716, 14252), (717, 14255), (718, 14264), (758, 14495), (763, 14513), (767, 14537), (789, 14681), (796, 14705), (800, 14756), (830, 14900), (834, 14918), (842, 14957), (846, 14996), (847, 15002), (850, 15011), (854, 15053), (859, 15131), (865, 15170), (879, 15305), (896, 15398), (897, 15401), (902, 15458), (903, 15467), (904, 15479), (909, 15500), (944, 15713), (948, 15752), (956, 15821), (964, 15875), (993, 16025),

Gene: Tarzan_16 Start: 9953, Stop: 14116, Start Num: 40

Candidate Starts for Tarzan_16:

(Start: 40 @9953 has 14 MA's), (44, 9980), (45, 9986), (48, 9998), (57, 10040), (71, 10088), (147, 10424), (197, 10646), (236, 10778), (241, 10799), (246, 10817), (273, 10946), (274, 10949), (305, 11078), (352, 11288), (357, 11312), (390, 11441), (404, 11477), (409, 11498), (416, 11537), (427, 11597), (433, 11618), (435, 11624), (466, 11705), (467, 11714), (495, 11807), (503, 11840), (516, 11900), (517, 11903), (553, 11993), (587, 12017), (597, 12053), (598, 12059), (600, 12074), (606, 12116), (612, 12167), (618, 12203), (630, 12254), (673, 12455), (675, 12464), (685, 12515), (688, 12539), (698, 12566), (705, 12584), (707, 12593), (720, 12632), (731, 12701), (756, 12842), (782, 13010), (784, 13034), (788, 13058), (803, 13151), (831, 13265), (832, 13268), (836, 13286), (910, 13562), (929, 13682), (941, 13748), (948, 13814), (965, 13943),

Gene: Toast_17 Start: 10235, Stop: 15886, Start Num: 9

Candidate Starts for Toast_17:

(Start: 9 @10235 has 1 MA's), (Start: 10 @10271 has 26 MA's), (Start: 13 @10292 has 1 MA's), (16, 10331), (18, 10376), (27, 10466), (28, 10475), (29, 10487), (31, 10508), (35, 10565), (41, 10637), (45, 10658), (53, 10700), (54, 10703), (60, 10730), (65, 10751), (66, 10754), (72, 10775), (77, 10796), (Start: 87 @10847 has 7 MA's), (88, 10850), (102, 10910), (141, 11093), (161, 11165), (194, 11351), (219, 11453), (222, 11468), (225, 11483), (240, 11540), (274, 11732), (296, 11852), (315, 11933), (320, 11963), (327, 11999), (334, 12050), (364, 12185), (365, 12188), (371, 12212), (383, 12263), (392, 12299), (394, 12305), (398, 12320), (408, 12374), (414, 12413), (419, 12437), (420, 12455), (434, 12503), (436, 12509), (440, 12527), (441, 12530), (444, 12545), (446, 12557), (451, 12605), (483, 12743), (503, 12824), (506, 12848), (509, 12860), (510, 12863), (519, 12896), (541, 12998), (547, 13025), (548, 13028), (549, 13031), (550, 13037), (557, 13082), (559, 13094), (561, 13106), (563, 13130), (565, 13145), (566, 13160), (567, 13163), (569, 13187), (572, 13214), (585, 13295), (601, 13379), (616, 13484), (621, 13517), (634, 13583), (635, 13592), (642, 13631), (644, 13664), (646, 13676), (647, 13679), (653, 13694), (655, 13703), (663, 13739), (664, 13748), (666, 13757), (701, 13913), (702, 13916), (703, 13919), (710, 13940), (728, 14021), (734, 14063), (745, 14150), (751, 14183), (753, 14192), (762, 14234), (780, 14348), (804, 14513), (821, 14597), (822, 14600), (828, 14630), (829, 14633), (837, 14666), (838, 14669), (849, 14747), (856, 14804), (866, 14921), (873, 14972), (885, 15074), (890, 15107), (900, 15173), (909, 15239), (910, 15245), (912, 15263), (918, 15296), (929, 15368), (938, 15410), (939, 15416), (941, 15434), (942, 15440), (945, 15461), (948, 15500), (969, 15641), (982, 15704), (991, 15779), (999, 15872),

Gene: Tolls_18 Start: 9649, Stop: 14436, Start Num: 91

Candidate Starts for Tolls_18:

(Start: 91 @9649 has 16 MA's), (Start: 97 @9676 has 1 MA's), (117, 9754), (129, 9805), (149, 9892), (157, 9907), (169, 9964), (172, 9982), (175, 10009), (177, 10012), (190, 10081), (202, 10138), (212, 10183), (216, 10201), (227, 10246), (232, 10261), (237, 10282), (244, 10315), (253, 10363), (255, 10366), (262, 10414), (269, 10453), (270, 10468), (310, 10660), (315, 10678), (331, 10762), (362, 10909), (370, 10936), (392, 11029), (394, 11035), (398, 11050), (404, 11089), (407, 11101), (419,

11167), (436, 11239), (440, 11257), (441, 11260), (446, 11287), (492, 11533), (506, 11599), (518, 11644), (522, 11665), (523, 11668), (524, 11671), (530, 11707), (540, 11746), (542, 11752), (549, 11779), (573, 11908), (574, 11911), (577, 11929), (598, 12052), (600, 12067), (618, 12196), (622, 12217), (632, 12259), (637, 12286), (639, 12292), (665, 12424), (668, 12436), (683, 12523), (694, 12565), (706, 12601), (735, 12727), (738, 12766), (764, 12895), (772, 12952), (777, 12994), (796, 13087), (802, 13162), (817, 13225), (833, 13306), (839, 13327), (860, 13504), (862, 13510), (887, 13729), (898, 13807), (900, 13825), (901, 13831), (909, 13891), (912, 13909), (918, 13942), (929, 14014), (937, 14053), (941, 14083), (948, 14149), (953, 14197), (961, 14257), (981, 14347), (989, 14407),

Gene: Trine_16 Start: 9668, Stop: 13906, Start Num: 39

Candidate Starts for Trine_16:

(Start: 39 @9668 has 7 MA's), (48, 9719), (76, 9842), (99, 9950), (131, 10094), (144, 10160), (162, 10214), (165, 10235), (171, 10262), (193, 10382), (205, 10436), (213, 10466), (243, 10580), (247, 10592), (267, 10682), (283, 10763), (327, 10961), (330, 10976), (335, 11012), (341, 11042), (349, 11072), (389, 11237), (419, 11327), (421, 11348), (426, 11360), (427, 11363), (428, 11366), (429, 11372), (435, 11390), (444, 11426), (449, 11468), (460, 11501), (468, 11534), (474, 11546), (488, 11600), (494, 11621), (495, 11624), (506, 11666), (512, 11678), (595, 11801), (596, 11804), (600, 11828), (606, 11870), (617, 11945), (618, 11957), (622, 11978), (634, 12032), (637, 12047), (641, 12068), (650, 12122), (675, 12209), (678, 12224), (685, 12260), (688, 12281), (756, 12527), (787, 12740), (810, 12884), (832, 12971), (836, 12989), (843, 13019), (894, 13223), (902, 13289), (909, 13331), (910, 13337), (918, 13388), (923, 13415), (929, 13463), (941, 13529), (948, 13595), (950, 13616), (960, 13700), (965, 13724), (966, 13727), (971, 13745), (983, 13805),

Gene: Troje_16 Start: 9601, Stop: 14397, Start Num: 91

Candidate Starts for Troje_16:

(Start: 91 @9601 has 16 MA's), (Start: 97 @9628 has 1 MA's), (98, 9634), (129, 9757), (157, 9859), (165, 9904), (169, 9916), (172, 9934), (175, 9961), (177, 9964), (181, 9979), (189, 10030), (190, 10033), (202, 10090), (203, 10093), (212, 10135), (216, 10153), (227, 10198), (237, 10234), (244, 10267), (250, 10300), (252, 10312), (262, 10366), (269, 10405), (270, 10420), (272, 10429), (277, 10456), (285, 10507), (299, 10567), (301, 10576), (315, 10630), (325, 10693), (329, 10708), (362, 10861), (370, 10888), (388, 10969), (392, 10981), (394, 10987), (398, 11002), (404, 11041), (419, 11119), (424, 11152), (436, 11191), (440, 11209), (441, 11212), (446, 11239), (452, 11296), (454, 11317), (463, 11380), (478, 11428), (484, 11449), (492, 11485), (503, 11527), (506, 11551), (518, 11596), (519, 11599), (522, 11617), (523, 11620), (524, 11623), (540, 11698), (542, 11704), (549, 11731), (558, 11791), (572, 11857), (573, 11860), (574, 11863), (577, 11881), (592, 11980), (596, 11995), (597, 11998), (618, 12148), (622, 12169), (632, 12211), (637, 12238), (639, 12244), (668, 12388), (683, 12475), (694, 12517), (706, 12553), (726, 12628), (735, 12679), (738, 12718), (752, 12796), (764, 12847), (772, 12904), (796, 13042), (802, 13114), (833, 13258), (839, 13279), (860, 13456), (862, 13462), (900, 13786), (901, 13792), (909, 13852), (912, 13870), (918, 13903), (929, 13975), (937, 14014), (941, 14044), (948, 14110), (949, 14128), (953, 14158), (961, 14218), (981, 14308), (989, 14368),

Gene: Typhonomachy_16 Start: 9629, Stop: 14767, Start Num: 22

Candidate Starts for Typhonomachy_16:

(19, 9605), (Start: 22 @9629 has 37 MA's), (25, 9656), (36, 9785), (43, 9860), (78, 10013), (79, 10016), (99, 10112), (102, 10121), (108, 10151), (111, 10157), (113, 10172), (114, 10175), (119, 10196), (135, 10268), (138, 10289), (158, 10355), (161, 10376), (185, 10493), (216, 10655), (225, 10694), (243, 10769), (271, 10928), (274, 10940), (278, 10967), (285, 11012), (289, 11024), (308, 11114), (313, 11132), (316, 11153), (321, 11183), (327, 11207), (329, 11219), (334, 11258), (340, 11291), (343, 11303), (364, 11393), (365, 11396), (371, 11420), (394, 11513), (398, 11528), (404, 11567), (414, 11621), (420, 11663), (432, 11705), (440, 11735), (441, 11738), (455, 11846), (456, 11849), (462, 11900), (484, 11975), (504, 12065), (506, 12077), (517, 12116), (518, 12122), (522, 12143), (523,

12146), (524, 12149), (540, 12224), (549, 12257), (554, 12278), (557, 12308), (569, 12356), (570, 12362), (574, 12389), (597, 12524), (613, 12641), (618, 12674), (622, 12695), (637, 12764), (639, 12770), (641, 12785), (666, 12905), (668, 12914), (683, 12998), (756, 13319), (792, 13538), (798, 13574), (839, 13787), (874, 13979), (881, 14027), (884, 14048), (900, 14156), (909, 14222), (912, 14240), (929, 14345), (935, 14375), (937, 14384), (941, 14414), (948, 14480), (953, 14528), (961, 14588), (980, 14675), (989, 14738),

Gene: UmaThurman_17 Start: 10381, Stop: 15924, Start Num: 10

Candidate Starts for UmaThurman_17:

(Start: 10 @10381 has 26 MA's), (12, 10396), (Start: 13 @10402 has 1 MA's), (Start: 15 @10432 has 1 MA's), (16, 10441), (17, 10444), (18, 10486), (29, 10597), (31, 10618), (62, 10846), (66, 10864), (70, 10879), (72, 10885), (73, 10888), (77, 10906), (82, 10930), (100, 11014), (101, 11017), (111, 11056), (113, 11071), (115, 11080), (156, 11248), (161, 11275), (225, 11593), (266, 11797), (274, 11842), (275, 11848), (278, 11869), (281, 11881), (298, 11971), (308, 12016), (315, 12043), (320, 12073), (334, 12160), (335, 12163), (342, 12202), (371, 12322), (380, 12364), (392, 12409), (394, 12415), (398, 12430), (408, 12484), (414, 12523), (418, 12544), (419, 12547), (420, 12565), (422, 12574), (434, 12613), (436, 12619), (441, 12640), (446, 12667), (483, 12874), (500, 12940), (506, 12979), (510, 12994), (518, 13024), (519, 13027), (529, 13078), (548, 13159), (549, 13162), (569, 13195), (575, 13225), (580, 13249), (634, 13582), (642, 13630), (646, 13675), (647, 13678), (653, 13693), (663, 13738), (664, 13747), (666, 13756), (676, 13807), (689, 13879), (696, 13897), (703, 13918), (727, 14017), (728, 14020), (731, 14053), (740, 14119), (742, 14137), (745, 14152), (751, 14185), (762, 14236), (770, 14287), (776, 14335), (805, 14530), (806, 14533), (821, 14605), (822, 14608), (837, 14674), (838, 14677), (841, 14695), (849, 14755), (856, 14812), (857, 14830), (864, 14911), (865, 14914), (866, 14929), (883, 15088), (890, 15142), (900, 15208), (907, 15262), (909, 15274), (910, 15280), (929, 15403), (934, 15427), (938, 15445), (941, 15469), (942, 15475), (945, 15496), (948, 15535), (969, 15676), (973, 15688), (982, 15739), (986, 15757), (999, 15907),

Gene: Upyo_16 Start: 9799, Stop: 14112, Start Num: 39

Candidate Starts for Upyo_16:

(Start: 39 @9799 has 7 MA's), (55, 9883), (81, 9994), (150, 10297), (184, 10438), (195, 10504), (200, 10522), (203, 10534), (215, 10582), (224, 10603), (241, 10663), (242, 10669), (260, 10750), (273, 10810), (274, 10813), (279, 10840), (344, 11122), (352, 11152), (357, 11176), (379, 11260), (384, 11281), (395, 11311), (409, 11362), (414, 11395), (416, 11401), (435, 11488), (447, 11554), (448, 11563), (464, 11683), (466, 11689), (483, 11743), (486, 11755), (492, 11779), (495, 11791), (503, 11824), (510, 11863), (516, 11884), (517, 11887), (523, 11923), (597, 12037), (598, 12043), (600, 12058), (605, 12097), (606, 12100), (617, 12175), (618, 12187), (623, 12211), (636, 12274), (657, 12373), (672, 12442), (680, 12490), (688, 12508), (701, 12532), (756, 12796), (819, 13165), (820, 13177), (832, 13222), (847, 13321), (900, 13486), (901, 13492), (905, 13534), (910, 13558), (929, 13678), (939, 13726), (941, 13744), (942, 13750), (948, 13810), (959, 13912), (965, 13939), (966, 13942), (972, 13963), (984, 14014),

Gene: Utz_17 Start: 10248, Stop: 15791, Start Num: 10

Candidate Starts for Utz_17:

(Start: 10 @10248 has 26 MA's), (12, 10263), (Start: 13 @10269 has 1 MA's), (Start: 15 @10299 has 1 MA's), (16, 10308), (17, 10311), (18, 10353), (29, 10464), (31, 10485), (Start: 40 @10605 has 14 MA's), (48, 10647), (62, 10713), (66, 10731), (72, 10752), (73, 10755), (77, 10773), (82, 10797), (100, 10881), (101, 10884), (111, 10923), (113, 10938), (115, 10947), (156, 11115), (161, 11142), (185, 11259), (219, 11430), (225, 11460), (266, 11664), (274, 11709), (278, 11736), (281, 11748), (298, 11838), (315, 11910), (320, 11940), (334, 12027), (335, 12030), (342, 12069), (371, 12189), (380, 12231), (392, 12276), (394, 12282), (397, 12294), (398, 12297), (408, 12351), (414, 12390), (418, 12411), (419, 12414), (420, 12432), (434, 12480), (436, 12486), (441, 12507), (446, 12534), (500, 12807), (506, 12846), (510, 12861), (518, 12891), (519, 12894), (529, 12945), (548, 13026), (549, 13029), (569, 13062), (575, 13092), (580, 13116), (587, 13182), (634, 13449), (638, 13467), (642,

13497), (646, 13542), (647, 13545), (653, 13560), (655, 13569), (663, 13605), (664, 13614), (666, 13623), (676, 13674), (689, 13746), (696, 13764), (703, 13785), (727, 13884), (728, 13887), (731, 13920), (740, 13986), (742, 14004), (745, 14019), (751, 14052), (762, 14103), (770, 14154), (805, 14397), (806, 14400), (821, 14472), (822, 14475), (837, 14541), (838, 14544), (841, 14562), (849, 14622), (856, 14679), (857, 14697), (864, 14778), (865, 14781), (866, 14796), (890, 15009), (900, 15075), (909, 15141), (910, 15147), (929, 15270), (934, 15294), (938, 15312), (941, 15336), (942, 15342), (945, 15363), (948, 15402), (969, 15543), (982, 15606), (986, 15624), (988, 15651), (991, 15681), (999, 15774),

Gene: VanLee_18 Start: 10919, Stop: 15565, Start Num: 40

Candidate Starts for VanLee_18:

(Start: 40 @10919 has 14 MA's), (47, 10952), (75, 11063), (76, 11069), (124, 11249), (125, 11252), (136, 11288), (137, 11291), (147, 11342), (159, 11381), (188, 11528), (234, 11735), (241, 11759), (276, 11948), (293, 12044), (303, 12086), (318, 12164), (334, 12251), (377, 12431), (382, 12452), (414, 12596), (524, 13094), (527, 13112), (603, 13388), (610, 13430), (638, 13583), (649, 13655), (659, 13682), (668, 13730), (692, 13856), (708, 13904), (714, 13925), (718, 13940), (723, 13964), (724, 13967), (747, 14114), (758, 14174), (763, 14192), (808, 14480), (869, 14819), (872, 14834), (912, 15080), (921, 15137), (925, 15164), (931, 15203), (934, 15209), (940, 15236), (951, 15347), (957, 15398), (961, 15434), (970, 15470), (977, 15503), (985, 15542), (986, 15545),

Gene: Vine_17 Start: 10381, Stop: 15480, Start Num: 22

Candidate Starts for Vine_17:

(Start: 22 @10381 has 37 MA's), (36, 10537), (54, 10666), (61, 10696), (78, 10765), (81, 10777), (88, 10813), (90, 10822), (99, 10864), (102, 10873), (111, 10909), (115, 10933), (128, 10993), (139, 11047), (148, 11086), (158, 11107), (161, 11128), (190, 11287), (192, 11299), (205, 11362), (216, 11407), (236, 11488), (266, 11647), (271, 11680), (274, 11692), (278, 11719), (289, 11776), (295, 11806), (297, 11818), (319, 11920), (320, 11923), (334, 12010), (343, 12055), (344, 12058), (371, 12172), (394, 12265), (398, 12280), (402, 12301), (408, 12334), (412, 12364), (415, 12376), (420, 12415), (427, 12439), (428, 12442), (435, 12466), (441, 12490), (454, 12595), (475, 12673), (483, 12703), (484, 12706), (492, 12742), (503, 12784), (506, 12808), (510, 12823), (515, 12838), (518, 12853), (523, 12877), (530, 12916), (532, 12931), (533, 12937), (541, 12958), (547, 12982), (549, 12988), (572, 13114), (579, 13144), (584, 13195), (591, 13231), (596, 13252), (597, 13255), (607, 13327), (613, 13372), (618, 13405), (622, 13426), (634, 13480), (645, 13555), (668, 13639), (683, 13726), (733, 13912), (756, 14044), (761, 14074), (782, 14212), (793, 14263), (798, 14293), (816, 14398), (827, 14449), (833, 14479), (867, 14659), (875, 14710), (881, 14752), (884, 14773), (900, 14869), (905, 14917), (909, 14935), (929, 15058), (934, 15082), (937, 15097), (941, 15127), (945, 15154), (946, 15160), (948, 15193), (955, 15262), (956, 15265), (961, 15301), (981, 15391),

Gene: Wallaby_20 Start: 10618, Stop: 15741, Start Num: 22

Candidate Starts for Wallaby_20:

(19, 10597), (Start: 22 @10618 has 37 MA's), (25, 10645), (36, 10774), (48, 10870), (58, 10921), (74, 10978), (80, 11011), (81, 11014), (99, 11101), (103, 11113), (113, 11161), (114, 11164), (115, 11170), (126, 11224), (128, 11230), (138, 11278), (158, 11344), (161, 11365), (243, 11758), (244, 11761), (263, 11863), (274, 11929), (275, 11935), (278, 11956), (320, 12160), (322, 12178), (324, 12184), (327, 12196), (329, 12208), (334, 12247), (336, 12259), (344, 12295), (357, 12352), (362, 12376), (394, 12502), (398, 12517), (404, 12556), (418, 12631), (423, 12664), (428, 12679), (429, 12685), (431, 12691), (441, 12727), (455, 12835), (466, 12907), (483, 12961), (518, 13111), (523, 13135), (533, 13195), (538, 13207), (540, 13213), (547, 13240), (548, 13243), (549, 13246), (568, 13339), (569, 13345), (577, 13396), (586, 13465), (593, 13498), (597, 13513), (598, 13519), (606, 13576), (608, 13588), (612, 13627), (613, 13630), (617, 13651), (618, 13663), (622, 13684), (623, 13687), (632, 13726), (634, 13738), (637, 13753), (666, 13894), (683, 13990), (703, 14056), (710, 14077), (713, 14083), (756, 14320), (761, 14350), (796, 14554), (798, 14575), (823, 14713), (833, 14761), (880, 14992), (881, 14998), (900, 15127), (909, 15193), (918, 15244), (929, 15316), (937, 15355),

(941, 15385), (946, 15418), (948, 15451), (956, 15523), (970, 15595), (980, 15649), (982, 15655), (989, 15712),

Gene: Walrus_18 Start: 10497, Stop: 16019, Start Num: 13

Candidate Starts for Walrus_18:

(Start: 10 @10476 has 26 MA's), (12, 10491), (Start: 13 @10497 has 1 MA's), (Start: 15 @10527 has 1 MA's), (16, 10536), (17, 10539), (18, 10581), (29, 10692), (31, 10713), (Start: 40 @10833 has 14 MA's), (62, 10941), (66, 10959), (73, 10983), (77, 11001), (82, 11025), (100, 11109), (102, 11115), (111, 11151), (113, 11166), (115, 11175), (119, 11190), (128, 11235), (133, 11256), (156, 11343), (161, 11370), (168, 11403), (185, 11487), (192, 11541), (201, 11583), (219, 11658), (225, 11688), (266, 11892), (274, 11937), (308, 12111), (315, 12138), (320, 12168), (334, 12255), (335, 12258), (342, 12297), (344, 12303), (357, 12360), (371, 12417), (380, 12459), (392, 12504), (394, 12510), (398, 12525), (408, 12579), (414, 12618), (418, 12639), (419, 12642), (420, 12660), (428, 12687), (434, 12708), (436, 12714), (441, 12735), (453, 12834), (500, 13035), (503, 13050), (506, 13074), (510, 13089), (518, 13119), (519, 13122), (529, 13173), (548, 13254), (549, 13257), (569, 13290), (575, 13320), (580, 13344), (587, 13410), (634, 13677), (642, 13725), (646, 13770), (647, 13773), (653, 13788), (658, 13806), (663, 13833), (664, 13842), (666, 13851), (676, 13902), (689, 13974), (696, 13992), (703, 14013), (727, 14112), (728, 14115), (731, 14148), (740, 14214), (742, 14232), (745, 14247), (751, 14280), (762, 14331), (770, 14382), (805, 14625), (806, 14628), (821, 14700), (822, 14703), (837, 14769), (838, 14772), (841, 14790), (849, 14850), (856, 14907), (857, 14925), (864, 15006), (865, 15009), (866, 15024), (883, 15183), (890, 15237), (900, 15303), (901, 15309), (909, 15369), (910, 15375), (929, 15498), (934, 15522), (938, 15540), (941, 15564), (942, 15570), (945, 15591), (948, 15630), (969, 15771), (973, 15783), (982, 15834), (986, 15852), (998, 15981), (999, 16002),

Gene: Widow_16 Start: 9677, Stop: 14296, Start Num: 39

Candidate Starts for Widow_16:

(Start: 39 @9677 has 7 MA's), (140, 10145), (152, 10187), (161, 10223), (170, 10262), (187, 10352), (188, 10364), (192, 10385), (193, 10394), (205, 10448), (220, 10505), (226, 10526), (230, 10538), (232, 10541), (239, 10571), (243, 10592), (247, 10604), (283, 10775), (293, 10829), (320, 10943), (327, 10973), (335, 11024), (341, 11054), (350, 11090), (380, 11222), (383, 11231), (385, 11243), (403, 11294), (417, 11360), (429, 11420), (433, 11432), (449, 11519), (462, 11555), (475, 11597), (476, 11603), (492, 11666), (493, 11669), (503, 11708), (506, 11732), (510, 11747), (519, 11780), (524, 11804), (529, 11831), (539, 11873), (542, 11882), (546, 11897), (549, 11912), (555, 11936), (562, 11996), (571, 12029), (573, 12041), (578, 12065), (579, 12068), (586, 12128), (596, 12173), (600, 12197), (606, 12239), (617, 12314), (618, 12326), (622, 12347), (623, 12350), (650, 12491), (651, 12494), (678, 12623), (681, 12644), (683, 12653), (697, 12707), (699, 12713), (756, 12971), (783, 13142), (784, 13160), (805, 13307), (816, 13349), (901, 13664), (910, 13730), (918, 13781), (923, 13808), (929, 13856), (934, 13880), (939, 13904), (941, 13922), (948, 13988), (960, 14093), (965, 14117), (966, 14120), (971, 14138), (972, 14141), (987, 14228),

Gene: William_17 Start: 10217, Stop: 15835, Start Num: 10

Candidate Starts for William_17:

(Start: 9 @10181 has 1 MA's), (Start: 10 @10217 has 26 MA's), (Start: 13 @10238 has 1 MA's), (17, 10280), (18, 10322), (27, 10412), (28, 10421), (29, 10433), (31, 10454), (36, 10520), (41, 10583), (45, 10604), (53, 10646), (54, 10649), (60, 10676), (65, 10697), (66, 10700), (72, 10721), (77, 10742), (Start: 87 @10793 has 7 MA's), (88, 10796), (102, 10856), (141, 11039), (161, 11111), (194, 11297), (219, 11399), (222, 11414), (225, 11429), (240, 11486), (274, 11678), (296, 11798), (315, 11879), (320, 11909), (327, 11945), (334, 11996), (364, 12131), (365, 12134), (371, 12158), (383, 12209), (392, 12245), (394, 12251), (398, 12266), (408, 12320), (414, 12359), (419, 12383), (420, 12401), (434, 12449), (436, 12455), (440, 12473), (441, 12476), (444, 12491), (446, 12503), (451, 12551), (483, 12689), (503, 12770), (506, 12794), (509, 12806), (510, 12809), (519, 12842), (541, 12944), (547, 12971), (548, 12974), (549, 12977), (550, 12983), (559, 13040), (561, 13052), (563, 13076),

(565, 13091), (566, 13106), (567, 13109), (569, 13133), (572, 13160), (585, 13241), (601, 13325), (616, 13430), (621, 13463), (634, 13529), (635, 13538), (642, 13577), (644, 13610), (646, 13622), (647, 13625), (653, 13640), (655, 13649), (663, 13685), (664, 13694), (666, 13703), (701, 13859), (702, 13862), (703, 13865), (710, 13886), (728, 13967), (734, 14009), (745, 14096), (751, 14129), (753, 14138), (762, 14180), (780, 14294), (821, 14543), (822, 14546), (828, 14576), (829, 14579), (835, 14603), (837, 14612), (838, 14615), (849, 14693), (856, 14750), (866, 14867), (873, 14918), (890, 15056), (900, 15122), (909, 15188), (910, 15194), (912, 15212), (927, 15305), (929, 15317), (939, 15365), (941, 15383), (942, 15389), (945, 15410), (948, 15449), (969, 15590), (982, 15653), (991, 15728), (999, 15821),

Gene: Wolfwood_18 Start: 10618, Stop: 15741, Start Num: 22

Candidate Starts for Wolfwood_18:

(19, 10597), (Start: 22 @10618 has 37 MA's), (25, 10645), (36, 10774), (48, 10870), (58, 10921), (74, 10978), (80, 11011), (81, 11014), (99, 11101), (103, 11113), (113, 11161), (114, 11164), (115, 11170), (116, 11173), (126, 11224), (128, 11230), (138, 11278), (158, 11344), (161, 11365), (243, 11758), (244, 11761), (263, 11863), (272, 11920), (273, 11926), (274, 11929), (275, 11935), (278, 11956), (298, 12058), (304, 12085), (320, 12160), (322, 12178), (327, 12196), (329, 12208), (334, 12247), (344, 12295), (357, 12352), (362, 12376), (364, 12382), (394, 12502), (398, 12517), (404, 12556), (418, 12631), (423, 12664), (428, 12679), (429, 12685), (431, 12691), (441, 12727), (455, 12835), (466, 12907), (483, 12961), (506, 13066), (518, 13111), (523, 13135), (533, 13195), (538, 13207), (540, 13213), (547, 13240), (548, 13243), (549, 13246), (568, 13339), (569, 13345), (577, 13396), (586, 13465), (593, 13498), (597, 13513), (598, 13519), (606, 13576), (608, 13588), (612, 13627), (613, 13630), (617, 13651), (618, 13663), (622, 13684), (623, 13687), (632, 13726), (634, 13738), (637, 13753), (666, 13894), (683, 13990), (703, 14056), (710, 14077), (713, 14083), (756, 14320), (761, 14350), (787, 14524), (796, 14554), (798, 14575), (823, 14713), (833, 14761), (880, 14992), (881, 14998), (900, 15127), (909, 15193), (918, 15244), (929, 15316), (937, 15355), (941, 15385), (946, 15418), (948, 15451), (970, 15595), (980, 15649), (982, 15655), (989, 15712),

Gene: Yarn_15 Start: 9639, Stop: 14426, Start Num: 91

Candidate Starts for Yarn_15:

(Start: 91 @9639 has 16 MA's), (Start: 97 @9666 has 1 MA's), (117, 9744), (129, 9795), (149, 9882), (157, 9897), (169, 9954), (172, 9972), (175, 9999), (177, 10002), (190, 10071), (202, 10128), (212, 10173), (216, 10191), (227, 10236), (237, 10272), (244, 10305), (253, 10353), (255, 10356), (262, 10404), (269, 10443), (270, 10458), (310, 10650), (315, 10668), (331, 10752), (362, 10899), (370, 10926), (392, 11019), (394, 11025), (398, 11040), (404, 11079), (407, 11091), (419, 11157), (436, 11229), (440, 11247), (441, 11250), (446, 11277), (492, 11523), (506, 11589), (518, 11634), (522, 11655), (523, 11658), (524, 11661), (530, 11697), (540, 11736), (542, 11742), (549, 11769), (573, 11898), (574, 11901), (577, 11919), (598, 12042), (600, 12057), (618, 12186), (622, 12207), (632, 12249), (637, 12276), (639, 12282), (665, 12414), (668, 12426), (683, 12513), (694, 12555), (706, 12591), (735, 12717), (738, 12756), (764, 12885), (772, 12942), (777, 12984), (796, 13077), (802, 13152), (817, 13215), (833, 13296), (839, 13317), (860, 13494), (862, 13500), (887, 13719), (898, 13797), (900, 13815), (901, 13821), (909, 13881), (912, 13899), (918, 13932), (929, 14004), (937, 14043), (941, 14073), (948, 14139), (953, 14187), (961, 14247), (981, 14337), (989, 14397),

Gene: Yucky_16 Start: 10241, Stop: 15340, Start Num: 22

Candidate Starts for Yucky_16:

(Start: 22 @10241 has 37 MA's), (36, 10397), (61, 10556), (78, 10625), (88, 10673), (99, 10724), (102, 10733), (111, 10769), (115, 10793), (128, 10853), (139, 10907), (148, 10946), (151, 10952), (158, 10967), (161, 10988), (190, 11147), (192, 11159), (205, 11222), (216, 11267), (236, 11348), (266, 11507), (271, 11540), (274, 11552), (278, 11579), (289, 11636), (295, 11666), (297, 11678), (319, 11780), (320, 11783), (334, 11870), (343, 11915), (344, 11918), (371, 12032), (394, 12125), (398, 12140), (402, 12161), (408, 12194), (412, 12224), (415, 12236), (420, 12275), (427, 12299), (428, 12302), (435, 12326), (441, 12350), (454, 12455), (464, 12503), (475, 12533), (479, 12548), (483,

12563), (492, 12602), (503, 12644), (506, 12668), (510, 12683), (515, 12698), (518, 12713), (523, 12737), (530, 12776), (532, 12791), (533, 12797), (541, 12818), (547, 12842), (549, 12848), (572, 12974), (579, 13004), (582, 13040), (583, 13043), (591, 13091), (596, 13112), (597, 13115), (607, 13187), (613, 13232), (618, 13265), (622, 13286), (634, 13340), (645, 13415), (668, 13499), (683, 13586), (733, 13772), (756, 13904), (761, 13934), (782, 14072), (793, 14123), (798, 14153), (816, 14258), (827, 14309), (833, 14339), (867, 14519), (875, 14570), (881, 14612), (884, 14633), (900, 14729), (905, 14777), (909, 14795), (929, 14918), (934, 14942), (937, 14957), (941, 14987), (945, 15014), (946, 15020), (948, 15053), (955, 15122), (956, 15125), (961, 15161), (981, 15251),

Gene: Yummy_17 Start: 9515, Stop: 14311, Start Num: 91

Candidate Starts for Yummy_17:

(Start: 91 @9515 has 16 MA's), (Start: 97 @9542 has 1 MA's), (98, 9548), (129, 9671), (157, 9773), (165, 9818), (169, 9830), (172, 9848), (175, 9875), (177, 9878), (181, 9893), (189, 9944), (190, 9947), (202, 10004), (203, 10007), (204, 10010), (212, 10049), (216, 10067), (227, 10112), (237, 10148), (244, 10181), (250, 10214), (252, 10226), (262, 10280), (269, 10319), (270, 10334), (272, 10343), (277, 10370), (285, 10421), (299, 10481), (301, 10490), (315, 10544), (325, 10607), (329, 10622), (340, 10685), (362, 10775), (370, 10802), (392, 10895), (394, 10901), (398, 10916), (404, 10955), (419, 11033), (424, 11066), (436, 11105), (440, 11123), (441, 11126), (446, 11153), (452, 11210), (454, 11231), (478, 11342), (484, 11363), (492, 11399), (503, 11441), (504, 11453), (506, 11465), (518, 11510), (519, 11513), (522, 11531), (523, 11534), (524, 11537), (540, 11612), (549, 11645), (558, 11705), (572, 11771), (573, 11774), (574, 11777), (577, 11795), (592, 11894), (596, 11909), (597, 11912), (618, 12062), (622, 12083), (632, 12125), (637, 12152), (639, 12158), (665, 12290), (668, 12302), (683, 12389), (694, 12431), (706, 12467), (719, 12503), (726, 12542), (735, 12593), (738, 12632), (752, 12710), (764, 12761), (772, 12818), (796, 12956), (802, 13028), (833, 13172), (839, 13193), (860, 13370), (862, 13376), (900, 13700), (901, 13706), (909, 13766), (912, 13784), (918, 13817), (929, 13889), (937, 13928), (941, 13958), (948, 14024), (949, 14042), (953, 14072), (961, 14132), (981, 14222), (989, 14282),

Gene: ZAYM_17 Start: 10932, Stop: 16055, Start Num: 20

Candidate Starts for ZAYM_17:

(Start: 20 @10932 has 13 MA's), (21, 10938), (51, 11211), (53, 11220), (63, 11259), (77, 11316), (90, 11379), (112, 11472), (115, 11490), (148, 11643), (161, 11685), (178, 11772), (216, 11964), (217, 11967), (225, 12003), (238, 12051), (266, 12204), (271, 12237), (273, 12246), (275, 12255), (281, 12288), (282, 12300), (286, 12324), (296, 12369), (298, 12378), (315, 12450), (316, 12462), (320, 12480), (351, 12639), (356, 12663), (357, 12672), (358, 12675), (392, 12816), (393, 12819), (394, 12822), (398, 12837), (408, 12891), (414, 12930), (436, 13026), (441, 13047), (444, 13062), (446, 13074), (453, 13146), (494, 13308), (526, 13365), (536, 13377), (537, 13380), (549, 13413), (568, 13506), (569, 13512), (570, 13518), (572, 13539), (573, 13542), (574, 13545), (578, 13566), (581, 13596), (588, 13644), (589, 13650), (592, 13659), (598, 13683), (600, 13698), (601, 13701), (602, 13707), (608, 13752), (609, 13761), (626, 13860), (634, 13902), (640, 13935), (645, 13980), (654, 14004), (666, 14049), (669, 14067), (702, 14205), (709, 14226), (716, 14244), (717, 14247), (718, 14256), (758, 14487), (763, 14505), (767, 14529), (789, 14673), (796, 14697), (800, 14748), (830, 14892), (834, 14910), (842, 14949), (846, 14988), (847, 14994), (850, 15003), (854, 15045), (859, 15123), (865, 15162), (879, 15297), (896, 15390), (897, 15393), (902, 15450), (903, 15459), (904, 15471), (909, 15492), (944, 15705), (948, 15744), (956, 15813), (964, 15867), (993, 16017),

Gene: Zarbodnamra_17 Start: 10273, Stop: 15795, Start Num: 10

Candidate Starts for Zarbodnamra_17:

(Start: 10 @10273 has 26 MA's), (12, 10288), (Start: 13 @10294 has 1 MA's), (Start: 15 @10324 has 1 MA's), (16, 10333), (17, 10336), (18, 10378), (29, 10489), (31, 10510), (62, 10738), (66, 10756), (70, 10771), (72, 10777), (73, 10780), (77, 10798), (82, 10822), (100, 10906), (101, 10909), (111, 10948), (113, 10963), (115, 10972), (156, 11140), (161, 11167), (219, 11455), (225, 11485), (266, 11689), (274, 11734), (278, 11761), (281, 11773), (298, 11863), (308, 11908), (315, 11935), (320, 11965),

(334, 12052), (335, 12055), (342, 12094), (361, 12178), (371, 12214), (380, 12256), (392, 12301), (394, 12307), (397, 12319), (398, 12322), (408, 12376), (414, 12415), (418, 12436), (419, 12439), (420, 12457), (422, 12466), (428, 12484), (434, 12505), (436, 12511), (441, 12532), (446, 12559), (454, 12637), (503, 12826), (506, 12850), (509, 12862), (510, 12865), (515, 12880), (518, 12895), (519, 12898), (529, 12949), (548, 13030), (549, 13033), (569, 13066), (575, 13096), (580, 13120), (634, 13453), (642, 13501), (646, 13546), (647, 13549), (653, 13564), (663, 13609), (664, 13618), (666, 13627), (676, 13678), (689, 13750), (696, 13768), (703, 13789), (727, 13888), (728, 13891), (731, 13924), (740, 13990), (742, 14008), (745, 14023), (751, 14056), (762, 14107), (770, 14158), (805, 14401), (806, 14404), (821, 14476), (822, 14479), (837, 14545), (838, 14548), (841, 14566), (849, 14626), (856, 14683), (857, 14701), (864, 14782), (865, 14785), (866, 14800), (883, 14959), (890, 15013), (900, 15079), (901, 15085), (909, 15145), (910, 15151), (929, 15274), (934, 15298), (938, 15316), (941, 15340), (942, 15346), (945, 15367), (948, 15406), (969, 15547), (973, 15559), (982, 15610), (986, 15628), (999, 15778),

Gene: Zareef_18 Start: 10620, Stop: 15749, Start Num: 22

Candidate Starts for Zareef_18:

(19, 10599), (Start: 22 @10620 has 37 MA's), (25, 10647), (36, 10776), (48, 10872), (58, 10923), (74, 10980), (80, 11013), (81, 11016), (99, 11103), (103, 11115), (113, 11163), (114, 11166), (115, 11172), (116, 11175), (126, 11226), (128, 11232), (138, 11280), (158, 11346), (161, 11367), (243, 11760), (244, 11763), (263, 11865), (272, 11922), (273, 11928), (274, 11931), (275, 11937), (278, 11958), (298, 12060), (304, 12087), (320, 12162), (322, 12180), (327, 12198), (329, 12210), (334, 12249), (344, 12297), (357, 12354), (362, 12378), (364, 12384), (394, 12504), (398, 12519), (404, 12558), (418, 12633), (423, 12666), (428, 12681), (429, 12687), (431, 12693), (441, 12729), (455, 12837), (466, 12909), (483, 12963), (506, 13068), (518, 13113), (523, 13137), (529, 13167), (533, 13197), (538, 13209), (540, 13215), (547, 13242), (549, 13248), (568, 13341), (569, 13347), (577, 13398), (586, 13467), (593, 13500), (597, 13515), (598, 13521), (606, 13578), (613, 13632), (617, 13653), (618, 13665), (622, 13686), (623, 13689), (637, 13755), (666, 13896), (683, 13992), (691, 14025), (703, 14058), (710, 14079), (713, 14085), (756, 14322), (761, 14352), (787, 14526), (796, 14556), (798, 14577), (833, 14769), (836, 14778), (858, 14859), (880, 15000), (881, 15006), (900, 15135), (909, 15201), (918, 15252), (929, 15324), (937, 15363), (938, 15366), (941, 15393), (946, 15426), (948, 15459), (956, 15531), (970, 15603), (980, 15657), (982, 15663), (989, 15720),

Gene: ZiggyZoo_16 Start: 10043, Stop: 15586, Start Num: 10

Candidate Starts for ZiggyZoo_16:

(Start: 10 @10043 has 26 MA's), (12, 10058), (Start: 13 @10064 has 1 MA's), (Start: 15 @10094 has 1 MA's), (16, 10103), (17, 10106), (18, 10148), (29, 10259), (31, 10280), (62, 10508), (66, 10526), (70, 10541), (72, 10547), (73, 10550), (77, 10568), (82, 10592), (100, 10676), (102, 10682), (111, 10718), (113, 10733), (115, 10742), (156, 10910), (161, 10937), (185, 11054), (192, 11108), (219, 11225), (225, 11255), (266, 11459), (274, 11504), (278, 11531), (281, 11543), (298, 11633), (308, 11678), (315, 11705), (320, 11735), (334, 11822), (335, 11825), (342, 11864), (371, 11984), (380, 12026), (392, 12071), (394, 12077), (397, 12089), (398, 12092), (408, 12146), (414, 12185), (418, 12206), (419, 12209), (420, 12227), (428, 12254), (434, 12275), (436, 12281), (441, 12302), (446, 12329), (453, 12401), (483, 12536), (503, 12617), (506, 12641), (510, 12656), (518, 12686), (519, 12689), (529, 12740), (548, 12821), (549, 12824), (569, 12857), (575, 12887), (580, 12911), (587, 12977), (634, 13244), (638, 13262), (642, 13292), (646, 13337), (647, 13340), (653, 13355), (655, 13364), (663, 13400), (664, 13409), (666, 13418), (676, 13469), (689, 13541), (696, 13559), (703, 13580), (727, 13679), (728, 13682), (731, 13715), (740, 13781), (742, 13799), (745, 13814), (751, 13847), (762, 13898), (770, 13949), (805, 14192), (806, 14195), (821, 14267), (822, 14270), (837, 14336), (838, 14339), (841, 14357), (849, 14417), (856, 14474), (857, 14492), (864, 14573), (865, 14576), (866, 14591), (883, 14750), (890, 14804), (900, 14870), (901, 14876), (909, 14936), (910, 14942), (918, 14993), (929, 15065), (934, 15089), (938, 15107), (941, 15131), (942, 15137), (945, 15158), (948, 15197), (969, 15338), (973, 15350), (982, 15401), (986, 15419), (999, 15569),